

What Napster and Emmanuel Goldstein Can Teach Business

by Bill Zoellick, Partner, Fastwater LLP

Executive Summary

Napster and 2600 Magazine: The Hacker Quarterly are both in trouble over copyrights and digital content. On the surface, these cases would appear to be of only minor interest to most businesses, beyond their value as entertainment and spectacle. Appearances are deceiving. Both of these cases are indicators, like coal mine canaries, of important shifts in how we use and derive business value from digital content.

Drawing on the work toward his forthcoming book on copyright, patents, and privacy issues, Fastwater partner Bill Zoellick looks at the deeper issues behind each of these cases. Taken together, they strongly suggest that businesses must shift business operations and revenue models to focus less on content and more on the process of using the content. This advice applies not only to publishers, where content is at the center of the business, but also to all businesses that develop and deliver intellectual property in digital form.

Getting Below the Surface of the News

If you are not in the publishing business it would be easy to think that the Napster case has nothing to do with you. You could easily conclude that paying attention to what Limp Bizkit, Metallica, and Chuck D. of the rap group Public Enemy have to say about intellectual property is of less lasting value to you than, say, the pronouncements from Alan Greenspan on the current state of the economy. You'd be wrong, at least for most businesses.

There is another case, less well publicized than Napster, but also important to our understanding of how we own and profit from intellectual property (IP). This case is perhaps even more strange and flamboyant than the Napster lawsuit, even with its retinue of rock stars. It involves a suit by the major motion picture studios against Eric Corley, editor of 2600: The Hacker Quarterly. Corley also goes by the name Emmanuel Goldstein, after the



leader of the underground in George Orwell's 1984. His magazine is named after 2600 hertz tone that hackers used in the 1960s to gain access to operator mode in what was then the Bell Telephone network's long distance system. If you were looking for a lawsuit that represented "Hackers vs. The Establishment," this would be a strong candidate. All the same, the lawsuit offers insights about the future of publishing, content management, and the value of IP for business.

The core issue being dealt with in these cases is that counting, controlling, and selling copies is a silly way to protect ownership of digital content and to profit from it. Further, they suggest that the big value, going forward, may be in controlling the processes surrounding use of the content rather than worrying about the content per se. Showing you why that is so requires digging into the cases a bit.

Napster

The Napster lawsuit, brought by major music recording companies against the free music sharing service, is about many things, including the way that new recordings are promoted, the record industry's iron grip on retail distribution, the industry's slowness in moving to digital distribution, and established licensing practices. But the most obvious focus of the case is on something called "contributory infringement," which is to say that the recording companies are accusing Napster not of infringing on copyrights directly, but of enabling others to do so.

Contributory infringement is a complicated idea. Manufacturers of photocopy equipment are, arguably, contributing to infringement. But what saves them from lawsuits is the fact that photocopy machines have many other legitimate uses besides making copies of copyrighted works. If there are significant legitimate uses of some technology, then a company wanting to protect its copyright must go after infringers directly, rather than suing the company that makes the technology that the infringer is using.

One of the more famous contributory infringement suits involved the Sony Betamax, the first VCR. It has direct relevance to the Napster lawsuit because, in the 1970s, when the Betamax first came to market, about the only thing you could do with a Betamax was record movies and other programming from network TV, infringing on copyright. Motion Picture Association of America president Jack Valenti, speaking before the House Judiciary committee regarding the VCR, said that "the growing and dangerous intrusion of this new technology" threatened his entire industry's "economic vitality and future security." Driving his point home with a most striking analogy, he told Congress that the new technology "is to the American film producer and the American public as the Boston Strangler is to the woman alone."

Valenti was wrong about the VCR. Rather than being primarily a tool for stealing content, it opened up enormous new markets for movie distribution. But none of that was apparent when the VCR first came to market. The reason is that new markets and new ways of doing things take time to



develop. VCRs, initially costing thousands of dollars, had to come down in price before there could be a mass market for new kinds of movie distribution. For that to happen there needed to be more demand for VCRs. That, in turn, required the growth of more interesting, easier uses for VCRs other than timeshifting (recording programs to be watched later) and making copies of movies. But distribution of new content on VCRs required a larger market, too ... which, cycled back to the original problem of the price of VCRs and the number of people using them. New markets proceed slowly, in this kind of chicken and egg fashion, revealing their direction and full potential only after many years.

What all of this means is that courts have good reason to proceed cautiously in responding to lawsuits that would truncate or redirect the slow, often fragile growth of new markets. Preemptive action by courts could lock us to current technology and markets. For that reason, the standard established by the Supreme Court in the Betamax case, where the Court ruled in favor of Sony and the VCR and against the studios, considers future, merely potential uses of new articles of commerce as well as their actual uses in early markets.

Applying the Betamax ruling to the Napster case is not straightforward. If it were, there wouldn't be much to argue about. But, for the purpose of learning from Napster, the questions raised by the Betamax precedent lead in the right direction. What would a successful, profitable business built around Napster's peer-to-peer music file sharing look like? What impact would this have on existing distribution channels? How would it provide incentives to artists? What controls could be placed on music use to ensure that the company received compensation for delivering content?

It is significant that even companies in the record business, and suing Napster, understand that these kinds of questions are not just theoretical. Most notably, Bertelsmann, the enormous German publishing conglomerate and one of the plaintiffs in the suit, has reached an agreement with Napster in which it has loaned Napster a sum estimated to be greater than fifty million dollars so that Napster can develop the technologies and business models required to recognize content ownership rights while still enabling digital music distribution. Bertelsmann will withdraw from the lawsuit and can turn its loan into an equity position in Napster if Napster is successful.

The Perspective from Mars

Imagine that we convened a panel of visionaries whose thinking is not tainted by familiarity with the past few hundred years of copyright law and practice -- perhaps a panel of reasonable, fair minded Martians. Suppose we asked them to make recommendations about how -- quoting from the U.S. Constitution -- "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" in a world where all work is in digital form.

As you know, one of the important things about digital information, unlike information on paper, microfilm, or some other physical format, is that it is



cheap and easy to make a perfect copy. For example, if you want a copy of this article as it is being delivered to you on the Web, a couple clicks of the mouse will get you one. Your copy is indistinguishable from my original. You can make millions of them if you want. Times have changed from when making a copy meant making a photocopy, with its obvious degradation and difficulty, particularly for longer works. And the changes are even greater if you look back, say, only fifty years, when the only efficient way to make copies was to print more of them.

Broadly distributed and easily accessible digital networks also have an impact on the cost and value of making copies. Suppose that you know that I -- or perhaps someone else -- can guarantee that this article is always available on the Web. In that case, the value of making copies at all would go down. Simply saving the URL would be just as good as saving a copy. If you wanted to share a copy with colleagues, you would probably just point them at the URL rather than bothering with making and transmitting new copies.

So, making digital copies involves only microscopic costs and, if a copy is known to be available, provides little in the way of benefit. Given these facts, it seems extremely unlikely that our panel of Martian experts would consider counting and controlling of copies as a credible solution, much less the best approach, to our goal of promoting the progress of science and useful arts by providing authors with limited exclusive rights.

Yet, that is what copyright law attempts to do.

Lessons from Emmanuel Goldstein

Eight motion picture studios are suing Eric Corley, aka Emmanuel Goldstein, editor of 2600, because 2600 published the source code for a program known as DeCSS. DeCSS decrypts the "Contents Scramble System" (CSS) that is used to protect movies on DVD disks from copying and other unauthorized use.

2600 didn't create DeCSS. The decryption program was the result of a collaborative effort by three European programmers. The immediate impetus for their work was that fact that the Linux system, as an open source system, did not include software that enabled people to play back DVD disks on Linux machines. (Open Source and secret coding schemes don't mix. If you know the encryption scheme and the key, then you have access to the content.) So, the trio figured out how CSS worked and cracked the key used to encrypt DVD content, then built a software device that enabled them to watch movies on their Linux computers. In keeping with Linux practice, they released their code to the broader Linux community. 2600 published the released code.

How can someone be sued for publishing open source code? The catch is that, in this case, the source code circumvents a copy protection scheme used to restrict access to copyrighted works. In 1998, Congress passed a sweeping, ambitious piece of legislation called the "Digital Millennium

Copyright Act" (DMCA). Among the provisions of the DMCA is one that makes it illegal to

manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title.

In other words, the DMCA is an attempt to solve the problem that would otherwise vex the panel of Martian sages. Confronted by the fact that counting copies makes no sense in a digital world where the cost of making copies is negligible, the DMCA uses the force of the law to add substantial cost to the making of unauthorized copies when content is encrypted: Making copies can land you in jail.

Making code cracking illegal, as opposed to merely difficult, is a new twist in copyright law. It used to be that software lock builders and lock pickers competed in the technical and market arenas. For example, a decade ago, when companies created software locking schemes to protect the data on floppy disks from being copied, other companies created software to open the locks. Because making backup copies is an important, legitimate use of such unlocking software, the courts at that time ruled in favor of letting locking and unlocking technologies compete. But in the debate over the DMCA, companies that own copyrights were successful in convincing Congress that, without new legal protections, the world of digital media would make copyright ineffective and obsolete. So, providing products to unlock encrypted, copyrighted content became a criminal act.

Emmanuel Goldstein's and 2600's defense against the accusation that the magazine violated the DMCA is that the DMCA is a bad law. They contend that the DMCA abridges freedom of speech and that it interferes with important aspects of "fair use." Their defense is a difficult one and, so far, has not been successful: The District Court judge ruled unambiguously in favor of the studios. The primary difficulty is that Congress' intent in the DMCA is clear, and Goldstein and his magazine have clearly violated it. Deciding to rule against Congress is not something that a court takes on lightly, particularly at the lower court level.

Fair Use

The questions that Goldstein and 2600 raise about fair use are important. "Fair use" is a Congressionally specified limitation on the rights of copyright owners. Specifically, the fair use provisions of copyright law state that reproduction "for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright." The idea here is that, since the goal of copyright is to promote progress, people need to be able to make use of the copyrighted works. Otherwise, copyright is just a protection for authors and publishers and not of any broader use to the general public.



For a number of technical legal reasons, it is difficult for Goldstein to use fair use as a defense in his own case, but the issues that he raises are interesting because of what they reveal about the way that control and use of content changes in a digital world. In the paper-based world of information, fair use works together with another limitation on the copyright holder's rights known as the "first sale" rule. If I deliver content to you on paper, you actually get to take ownership of the physical copy. So, although the rights to the content are mine, the physical copy is yours. You can read it as many times as you like, can comment on it and critique it, you can cut it into pieces to make a collage, you can burn it, you can send it to a friend, you can sell the physical copy to someone else.

Your situation is potentially more limited if I deliver the content electronically. You need some kind of software to serve as a "reader" so that you can turn the digital content into something you can see and use. If I deliver my content as a web page, email, or in some other form that can be interpreted by commonly available readers, then there are not many constraints on your use of the content. But, on the other hand, if I require the use of a specialized reader, I can use that piece of software to place strong constraints on your use. I could, for example, create a reader that keeps track of when and how often you use the content, sending a record back to me. I could tie reading to a system pay-per-view charges. I could restrict the reader so that it will not print the content to paper or allow you to make digital excerpts. I could build the reader so that your access to the work expires after some fixed amount of time or number of uses.

In short, specialized readers allow copyright owners to control not just distribution of content, but also how it is used, in detail. This is new. It extends the control of the publisher from the content itself to also include the process of how the information is used.

Goldstein's point -- an accurate one even if not immediately relevant to his defense -- is that the DMCA locks this control in place. If I provide an intrusive, expensive, restricted viewer for my encrypted content, the market might normally correct my desire to assert such enormous control because I would be opening an obvious business opportunity for someone who could produce a less restrictive, alternative reader. The DMCA outlaws such market activity. It guarantees that I, as copyright owner, get to decide in great detail how you will use my content. And I get to put would-be competitors in jail.

Licensing

Returning to the problem posed to the panel of Martians, it is clear that Congress is making heroic efforts to shore up the concept of protecting copies and that, not surprisingly, these extreme exertions are having side effects, most notably in the direction of changing fundamental notions of ownership and use of intellectual property. But the reason for putting Martians on the panel is that they might have a broader perspective, up above the clouds, unencumbered by attachment to copyright and other older ways of doing things. What might they recommend?



They might start with the facts as they find them:

- For digital information, trying to count and control copies of information in the same way that you would inventory and track distribution of widgets is madness.
- Digital information requires reading and viewing devices: It is not enough to have a copy of the work, you also need a reading device to use it.

This last point contains the seeds of a new solution to the problem, since it means that there is an additional control point beyond the release of copies of content into a distribution channel. With information on paper, once you publish and distribute something, it is gone -- beyond control except through copyright and infringement lawsuits. For digital information there is the potential for control at the point of use. The DMCA takes this control beyond the reach of market forces -- a bad idea -- but even without the DMCA the potential to focus on use rather than on copies opens attractive approaches to providing an alternative to the copyright controls that were used for physical publications.

All of this suggests a shift in focus from copyright and copy control -- the traditional way of providing limited monopolies to authors and publishers -- to licensing of rights to use information. Software, of course, already uses licensing, as opposed to sale of copies, as the preferred compensation scheme. Applied to Napster, this might take the form of a monthly fee to access digital recordings, perhaps scaled to volume of use. Applied to research and reference work, this might take the form of licensing fees to extract, quote or otherwise reuse information -- a new startup called Ebrary is hoping to build on just such a model.

There are, at present, problems and dangers associated with licensing models for content use. Because Congress is still stuck on the old, dated model of controlling copies, it has not taken any steps toward a common framework that might constrain the reach of licensing agreements for published works. Consequently, licensing agreements can contain terms, such as restrictions on criticism or public comment on a work, that are inconsistent with the broader objective of promoting "progress of science and useful arts." There is important work to do here, but getting to it requires that Congress first takes a broader view of the problem than it has to date. It needs that panel of Martians.

Implications for Business

Apart from potential actions by Congress, there are implications for business from the changes that are brought into view by the Napster and DeCSS disputes. If we, as business people, get up above the legal particulars in these cases, it is clear that they offer a glimpse of large shifts in how businesses derive value from digitally distributed intellectual property. The changes grow from the transition from a focus on content to a focus on the process of using the content.



Perhaps the strongest message from these cases is that the locus of value is moving downstream. If Napster, with Bertelsmann's help, is successful in inventing new ways to derive value from recorded music, it will almost certainly take the form of providing a service. The game will not consist simply of recording music, promoting it, and then selling copies of discs. Instead it will shift to emphasize continuing relationships with subscribers, continuing to add value after the song is delivered.

The strength of this shift in value from content to process is even more evident when one looks at business applications that are less closely tied to traditional publishing. For example, consider Contract Research Organizations (CROs) working within the pharmaceutical industry, running the clinical studies that are central to new drug research and development. The obvious "product" from CROs is the clinical data -- content comprised of patient demographic data, administrative information, test results, comments by researchers and reviewers, and so on. But as CROs move to digital data delivery, the center of balance shifts to include downstream value, such as worldwide, electronic access to research results, data analysis, and specialized professional services such as providing oncology expertise and cardiovascular expertise. Digital content has allowed CROs to greatly expand their services beyond simply collecting and publishing results. Consistent with the direction suggested by the DeCSS case, the key to unlocking much of this added value involves use of specialized, secure delivery environments and a shift from focus on content to focus on the processes associated with using the content.

The second big message grows from the first: digital content is more consistent with revenue models built around licensing and the sale of services than with models depending on sale of product, particularly when the product is a copy of some published work. Once again, Napster provides a clear example of this: Rather than selling CDs for \$16.98 the focus shifts to selling a license to download and play music. Similarly, Ebrary, rather than selling a copy of a book, charges a license fee to quote and otherwise reuse work.

The third shift is toward creating value through aggregation of content. If I write a great book, you might buy a copy -- but you won't subscribe to a service unless it can aggregate many useful kinds of information over time. Or, as an example of very different kind of content, consider the usage, temperature, vibration, and other performance data that is automatically collected by devices such as industrial engines and centrifuges. Taken individually, each device can create a "report" concerning usage data and impending failure conditions. (Note that remote monitoring of such digital content, once again, moves the value downstream, creating opportunities for service offerings.) But additional value is available from the aggregation of this individual reports into profiles that can be used to direct maintenance procedures and buying decisions.



Napster and Goldstein Reconsidered

On the surface the copyright debate is about music, movies, books, and other published content. But the fact that lies beneath the surface of these cases is the reality of digital content. Digital content is not corporeal -- counting and controlling copies makes no sense. The movement to licensing, as opposed to sale of copies, when coupled with the fact the digital content needs reading devices to be useful, moves the transaction associated with the content closer to the point of end use. Value shifts from content to process. The immediate results for all businesses are that:

- Digital content pushes the opportunities for creating value downstream in the interaction between content creator and content user
- Licensing and other service offers, not sale of copies, become the preferred new revenue models
- Value increases with aggregation of content

These are big shifts that apply far beyond the bounds of music, movies, and other publishing. It is also true that developments in these particular, early conflicts will have impacts that reach far beyond the immediate confines of the lawsuits. The experimentation with licensing models for peer-to-peer exchanges that is at the heart of Napster's recent development efforts is relevant to any business that needs to create, distribute, and protect information. The critique of the DMCA that is embodied in the case between Emmanuel Goldstein and the studios will be critical to determining the degree to which market opportunities can grow around the new value point in information distribution, centered around the reading device. These cases, and others like them, are worthy of any business' attention.

About the Author

Bill Zoellick is a partner at Fastwater LLP, an engineering and marketing firm that works with companies to develop products and solutions for e-business. He is the author of *Web Engagement: Connecting to Customers in e-Business* (Addison Wesley, 2000) and co-authored *File Structures: An Object Oriented Approach With C++* (Addison Wesley, 1997). He is currently working on a book on e-business policy issues revolving around privacy and intellectual property.

