



Making Money Selling Content that Others Are Giving Away

Alan H. Karp
Software Technology Laboratory
HP Laboratories Palo Alto
HPL-2002-135
May 10th, 2002*

copyright law,
digital content,
digital rights
management

This note discusses the problem of making money by selling content in the form of bits. Many people refer to this issue as one of digital rights management, controlling the use, copying, and distribution of the bits. This note makes the case that the issue should be cast as one of making money by adding value and having barriers to entry.

Making Money Selling Content that Others Are Giving Away

Alan H. Karp
Hewlett-Packard Labs
Palo Alto, California

Abstract

This note discusses the problem of making money by selling content in the form of bits. Many people refer to this issue as one of digital rights management, controlling the use, copying, and distribution of the bits. This note makes the case that the issue should be cast as one of making money by adding value and having barriers to entry.

Introduction

The owners of digital content are claiming that they will go out of business unless legal and technical means are imposed to prevent what they call “rampant piracy”. Napster provides the most visible example, and one where the effects of the legal system are most visible. However, the Digital Millennium Copyright Act (DMCA) [1] has far more long term and widespread impact. More insidious is the pressure large content providers, such as record companies and movie studios, are putting on equipment manufacturers to coerce them to build devices that cannot copy digital content.

Copyright owners argue that digitization of content has changed the landscape sufficiently that copyright precedent, particularly the right of first sale and fair use provisions [2,3], are no longer relevant. Their argument is along the following lines. If I buy a physical book and give it to you, you have a copy and I do not. If I buy an electronic book and give you a copy of the bits, then you have a copy and so do I. It is this ability to make an inexpensive, perfect copy that they claim requires new laws and intrusive technology solutions.

These arguments are not new. Tape recorders were going to destroy the music industry. Anyone could copy a record and give away the copies. The artists would be deprived of their royalties and would cease to produce music. Of course, this prediction proved incorrect. True, people made copies on tape, but most often of records and prerecorded tapes that they owned. Sharing of these copies often led to more sales, not fewer, as new listeners were attracted to the artist’s music. Nevertheless, manufacturers of recording equipment and tapes were required to pay royalties into a fund that distributed the money to copyright holders [4].

These same issues were raised when photocopy machines first became widely available. Doomsayers predicted the end of publishing. Why would anyone buy a book when it could be copied? Of course, that situation never arose. While someone could make copies of a book and sell them, a book is more than an image of its pages. It is also the cover and the binding, items not as easily copied. Still, someone with access to binding

equipment could produce books from copies and sell them for less than the original publisher because of the royalties paid to the author. Preventing such copying was the motivating force behind the first copyright laws [4] that dealt with the use of printing presses. However, photocopying required a clarification to expressly allow reasonable copying for personal use [5]. More draconian proposals, such as requiring a machine identifier on each photocopy, never became law. Widespread copying of books has never been an issue, except in some countries. In fact, some authors put the full text of their books on the web in the expectation that the policy will generate more sales of physical copies [6]. However, photocopying of journal articles has undoubtedly affected the revenue of professional journals.

Movie studios made a similar argument when video tape recorders were introduced. In the Betamax case [7] the content owner wanted the court to rule that “time shifting” infringed their copyright and that Sony should be held liable. Not only did the court refuse to hold Sony liable, the justices noted that the value of the copyright was enhanced by gaining viewers who would otherwise have missed the program. Movie studios also worried about videotapes destroying their theater business. Why would anyone pay to go to the movies when inexpensive copies could be widely distributed? They made strenuous efforts to make this technology illegal. Fortunately for them, Congress refused to listen. Today, it is not unusual for a studio to make far more money from the distribution on tape than in theaters, yet theater attendance is far higher today than when VCRs became available to the general public. In fact, many movies never appear in theaters; they are released direct to video.

Digital audio tapes came long after VCRs, during which time there was a great degree of consolidation in the music business, consolidation which led to an enhancement of political power. Since DATs allow near perfect copies, widespread piracy would put them out of business, content providers argued. This time they prevailed, at least partially. Laws were passed that presumed piracy was the intent of copying. However, instead of outlawing DAT recorders, equipment manufacturers were forced to include a mechanism to prevent copying of a copy. In addition, manufacturers had to pay a 2% royalty fee [5] to be distributed to copyright holders. Although the arrangement is similar to that reached decades earlier for analog recording, the effect was quite different. Apparently, in this case the fee was high enough, or the restriction on copying important enough, to limit the demand for DAT tapes and equipment to the extent that it never achieved a large market share.¹ We will never know what business models would have arisen had these limits not been imposed.

There is an industry that is thriving despite the fact that it relies entirely on easily copied digital content. It's not for lack of competition, either. Web searches of the three most likely search terms in this area returned 61,000,000 hits, 20,000,000 hits, and 13,000,000 hits. Even so, Huberman [8] reports that the top 100 web sites garner almost all of the traffic. The industry is pornography, and the search terms are “sex”, “nude”, and

¹ Some have attributed this failure to the rapid pace of technology, citing digital minidisks as a contributing factor. However, neither technology has gained a very large share of the recording market.

“naked”. With so much competition, it is only reasonable to assume that at least some of these sites are profitable.

What’s the product? Images, but these images are just bits in a computer and can be copied as easily as the bits representing the music in an MP3 file. Why is it that the pornography industry can make money selling easily copied content while the music industry feels its only recourse is the courts and legislation?

Making Money

As we have seen, some businesses are profitable even when their only product is digital content. How is this possible? The content can be duplicated and distributed at essentially zero cost. It is clear that profitability cannot be based solely on selling the bits representing the content.

The publishing, movie, and music industries have forgotten, but the pornography industry has not, that there are two aspects to a profitable business – added value and barriers to entry. Adding value gives customers a reason to buy from you instead of directly from your suppliers, and barriers to entry make it difficult for others to enter your business and compete with you. The former is how a business generates revenue; the latter makes turning a profit less difficult. Widespread access to computers and the Internet have reduced the added value of reproducing and distributing digital content to near zero. This factor is the only one the copyright holders discuss. A fair analysis must consider the totality of the business.

The adult content business is profitable, which means it adds value and has barriers to entry. These factors do not involve reproducing and distributing the content itself, though, which no longer adds value. Their added value comes from high quality web pages and good server performance, attributes they tout. High quality web sites are expensive to produce, and providing good performance requires a substantial investment in infrastructure. These factors may explain why adult sites are profitable even though the bits representing their content are available for free elsewhere.

What about the publishing industry? Delivering text requires neither high quality web sites nor extensive infrastructure. In this case, publishers must find value to add and barriers to entry. One way to do so is to focus not on the content itself but on meta-content. Meta-content is the set of things that make the material itself more valuable. For example, links to definitions of words, commentary by others, cross links within the document, and links to other documents all add value. This meta-content can also be a barrier to entry because of the time and effort to connect it to the document. Properly structured, such links would be useless if someone merely copied the bits representing the document. The document itself without the meta-content would be worth less than with it, and it is this added value that people will pay for. Forcing someone who has copied the document to update all its meta-content is a barrier to entry.

Such added value could provide a revenue stream for technical journals that has been eroding since the advent of the copier, an erosion that has been accelerating with the

widespread use of the web. Few individuals still subscribe to journals, electronic or otherwise. Instead, they typically get the papers they wish to read from the authors' web sites. Restrictive copyright agreements that prevent this type of sharing limit the dissemination of information far too much to be acceptable to the scientific community. Had the publishers of these journals had more political clout, I'm sure we'd have seen legislation requiring such agreements. Instead, journals can regain their subscriber base by providing meta-content, links to referenced material, higher quality images, better performance, better searches *etc.*

Music and video content is more of a problem. What value can be added to an MP3 file containing a song or an MPEG file of a movie? Very little as long as all people want to do is listen to that one song or watch that one movie. It's up to the industry to find meta-content that people will be willing to pay for. For example, content owners can link the MP3 file to a site that provides continually updated video or that updates the content to correspond to the latest live performance. Moviemakers are doing something similar when they sell DVDs. A typical two-hour movie comes with several hours of additional material. Added value that people might be willing to pay for might include updates to the video, interactive features, and viewer controlled editing. Interaction with the artists involved would also be attractive to many people. Both music and movies accompanied by continually updated referrals to similar content is another way these industries can add value.

The ideas for adding value presented in this section are only that, ideas. True innovation will come from those creating new industries around old media, much in the way that video rental stores were built around videotapes containing movies. Attempts to protect existing businesses will only serve to delay, or even prevent, the arrival new business models that will provide more value to the customer and more revenue to the content owners.

Acknowledgements

Thanks to Harumi Kuno for suggesting several ways to add value to music and movies.

References

1. "The Digital Millennium Copyright Act", <http://www.gseis.ucla.edu/iclp/dmca1.htm>
2. P. Samuelson, "Copyright's fair use doctrine and digital data", *Comm. ACM*, **37**, #1, pp. 21-27, 1994
3. P. Samuelson, "The Copyright Grab", *Wired*, January, 1996
4. J. Littman, "Revising Copyright Law for the Information Age", *Oregon Law Review*, **19**, 1996
5. *Copyright Law of the United States of America*, <http://www.loc.gov/copyright/title17/circ92.pdf>, July 2001
6. <http://www.mindview.net/Books/DownloadSites>
7. Opinion of the Majority in *Sony Corp. v. Universal City Studios* 464 U.S. 417, 104 S. Ct. 774, 78 L. Ed. 2d 574. <http://www.virtualrecordings.com/betamax.htm>, 1984
8. B. Huberman, *The Laws of the Web*, MIT Press, 2001