



Digital Rights Management (DRM): Media Companies' Next Flop?

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Big media players are accustomed to watching the ratings for the most popular music, video and book content, but perhaps they should pay more attention to how consumers feel about three letters at the bottom of most charts -- DRM, which stands for digital rights management. Broadly defined, DRM encompasses multiple technologies that control the use of software, music, movies or any other piece of digital content. These technologies typically prevent consumers from moving content around to multiple devices and limit how the content can be used.



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Media players are risking a consumer backlash by deploying overzealous systems with such limitations, say experts at Wharton, especially in the wake of Sony BMG's decision last year to sell CDs with copy-protection software using "rootkits" -- computer software frequently used by hackers to cloak the presence of viruses and spyware. Sony says it didn't intend create an opportunity for hackers to target consumers' PCs. On January 6, 2006, a U.S. District judge in New York gave preliminary approval to a settlement under which Sony agreed to take back the 50 CD titles with DRM software and replace them with new unprotected versions. Indeed, according to a document on the Sony BMG web site, the DRM software was "intended simply to prevent copying beyond the level appropriate for personal use."

The Sony incident, however, raises a host of questions. First and foremost is whether consumers are being duped when they buy content, only to find there are restrictions on transferring music to multiple devices or, even worse, that the DRM software exposes their computer to security risks. Other questions include: Is DRM worth the effort? How can you balance the rights of consumers with the rights of media companies? And what's the future of DRM?

One thing is certain: A few more incidents like Sony's "rootkit" flap and consumers may revolt. It's "important that DRM doesn't ruin the customer experience," says Wharton marketing professor [Peter Fader](#). CDs that limit the ability to play, rip, and mix music take restrictions too far, he adds, while controversies such as the one sparked by Sony's DRM system can cause consumers to think twice before buying digital content.

Wharton legal studies professor [Dan Hunter](#) says his problem with DRM has to do with the stringent restrictions favored by music labels and Hollywood. "Ultimately, those limits will lose customers," says Hunter. He isn't alone in that assessment. Ben Macklin, senior analyst at research firm eMarketer, notes in a report that "if the rightful owner does not allow consumers to get the content they want, when they want it and how they want to use it, they will get it elsewhere. Content providers can either get a piece of the action or put such tight [controls] on their content through DRM and restrictive terms-of-service agreements that consumers will simply avoid them."

Mark Cuban, owner of the Dallas Mavericks and a partner in 2929 Entertainment, a holding company that has begun to release high-definition movies simultaneously in theatres and on TV and home-video, adds that DRM restrictions could easily alienate customers, especially as entertainment platforms such as the PC, handheld devices and television converge. "You could really [anger] your customers, so you better come up with something that puts the customer first," said Cuban in an email interview.

To Hunter, the real cost of DRM schemes is that they keep content out of the hands of future generations.

"DRM locks up content that would otherwise be re-used." While it's correct to think that those who create content "should get a return on investment, the trouble with [DRM] is that it doesn't work and never will because it cuts off re-use that happens naturally."

He compares the current approach to DRM to a hypothetical example involving a book written in 1576. Since the book doesn't have DRM and is under fair use, Hunter can go to the University of Pennsylvania's library and read it. "If that same book had DRM, I wouldn't be able to read it now. The person who created the content and the technology protecting it are dead. The standards would be unrecognizable" and therefore the content would be lost, he says. "Content owners should make money, but they need to come up with a way that allows re-use in 20 to 30 years."

"Too Draconian"

According to Cuban, DRM has become a huge flashpoint for consumers because of one simple fact -- entertainment companies' fear of piracy. The music industry -- rattled by its bitter experience with peer-to-peer networks that allowed consumers to swap music across the Internet for free -- has worked feverishly to win court battles and shut down file-sharing services like the original Napster and Grokster. Hollywood is just as concerned about Internet distribution of movies. Technology companies, which are also trying to become the center of the digital living room, create software that complies with the restrictions imposed by the entertainment companies. "Everyone is just trying to placate [Hollywood's] piracy paranoia," says Cuban.

Meanwhile, the recording industry, fresh off a series of victories in court over file sharing services, has a new target: people burning CDs of recorded music. In a presentation in August, 2005, Mitch Bainwol, CEO of the Recording Industry Association of America (RIAA), noted that 12% of households burn CDs and 37% of that group burn six or more CDs. To the RIAA, ripping and burning CDs is now a bigger threat to the industry than file sharing networks, Bainwol said.

An email sent by an RIAA spokesperson to Knowledge@Wharton stated that "DRM and copy protection are important parts of the creative process, serving to protect the work of musicians and labels and promote responsible personal use by fans. They are no silver bullet, nor were they ever intended to be. They are one component of a larger effort to protect our works from theft DRM is a key piece of the digital future, not just for music companies but also for movie studios, software companies and countless other intellectual property industries."

Kendall Whitehouse, senior director of advanced technology development at Wharton, agrees that the aim of DRM is valid, but criticizes most current implementations as "too draconian" because they are "largely skewed in favor of the content owner at the expense of the consumer" and lose sight of the fact that "both parties [the content owner and the consumer] have rights that need to be protected."

Don Huesman, senior director of faculty technology at Wharton, also contends that DRM has value. "Most people think DRM is a problem, but I don't agree. I'm a fan of approaches that reward creative talent," says Huesman, who at the same time acknowledges problems with many current content protection schemes, including Sony's "obnoxious" behavior. But DRM shouldn't simply be thrown out, he believes. The goal of DRM is to "keep honest people honest" about sharing content. If you can prevent most consumers from swapping files across the Internet, then the content creators can benefit, says Huesman, who argues that DRM doesn't have to be 100% effective to be a success.

"If it's 20% effective, that's enough. You have to err on the side of access and fair use," he suggests, adding that using DRM is better than allowing piracy to run rampant. Why settle for 20%? According to Huesman, before DRM technology, content owners couldn't even track what happened to their property once it was purchased. If DRM manages to be just successful enough not to be a burden, enough incremental dollars will go to the creative types to be worth the effort.

Cuban doesn't buy it. DRM is "a waste of time. There is always someone smarter" who can sidestep anti-piracy efforts, he says.

Apple Makes DRM Work

While Sony's miscues have sparked outrage, Wharton experts note that managing digital rights can be done correctly by balancing consumer interests with those of the entertainment industry. The best example of such an approach is Apple and its iTunes store. Apple's software places restrictions on what a consumer can do with music, but the parameters are broad enough to keep most consumers happy. "iTunes is the first [DRM strategy] to think seriously about balancing the needs of content owners with those of consumers," says Whitehouse. "Apple has attempted to satisfy both sides of the equation." What makes iTunes work is its "mild mannered" approach to DRM, adds Huesman. "Apple is above the board and provides a high-quality experience."

Nevertheless, iTunes isn't ideal for all consumers because they can't play music on more than five computers at the same time under Apple's limitations. "It's not a perfect solution and consumers wish they could do more," says Fader. "But there hasn't been a backlash to iTunes." Adds Cuban: "Apple's DRM doesn't restrict what 99% of users do, so to them it's not real DRM. Most users don't have multiple devices to exchange music between."

Hunter, however, wouldn't be surprised if DRM issues within iTunes begin to surface, especially as more Apple fans wind up owning a handful of digital music players and try to transfer music bought at iTunes to all other devices. Although there are ways to disable Apple's protections, it may be too technical for many consumers. As a result of those limitations, Hunter would rather buy a CD than download music from iTunes. Indeed, Apple is putting the restrictions on to satisfy its music label partners, but "in the long run, it's something that may hurt" the company, says Hunter.

DRM's Future, or Lack of It

For all the angst about DRM, there are those who believe it has a future. In fact, arguments about how to protect digital rights may seem downright passé in a decade. Streaming -- media played in real time as it arrives over the Internet -- "is going to make downloading look antiquated," says Huesman.

Indeed, as broadband access becomes faster and more prevalent, streaming content either through subscriptions or on-demand "pay per view" will become the dominant model, argue Wharton experts. Streaming places the control of the distribution in the hands of the content owner, while allowing a consumer to play the content from any Internet-connected device. In the future, content owners "will be able to prevent redistribution without draconian steps," says Whitehouse.

In addition, streaming provides content owners with a number of other benefits, such as the ability to capture accurate and detailed usage information. For advertising-driven content, such as traditional broadcast television, streaming can even be used to prevent viewers from skipping commercials. Whitehouse believes network television should be embracing digital content distribution through streaming because it gives them much of what they have been missing in recent years by helping them "expand their audience, avoid the 'TiVo effect' of skipping commercials, and collect more usage data than any of the current viewer rating services."

Fader sees streaming becoming the norm and notes that Apple could lead the charge in both music and video. For example, the company could easily create an "iTunes Deluxe" that would allow files to be shared across all devices. "From a business standpoint, it's an incredible opportunity."

And if streaming doesn't become the norm, better alternatives to DRM systems are likely to emerge along with new business models from startups, Fader adds. "DRM will not be seen as an

issue when a company comes along that is not beholden to traditional models. Right now, entrenched players are holding the cards and there is no incentive to move quickly. The real future of DRM hasn't been set."

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