Fine-Tuning

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In the summer of 2005, the U.S. Supreme Court handed down a surprise ruling that rocked the digital media landscape: Grokster and Streamcast Networks, makers of file-sharing, or peer-to-peer (P2P), software could be held liable if they were found to encourage piracy on the Internet. America's biggest music and movie companies, whose businesses depend on copyrights to creative works, had won their day in court.

But whereas the court objected to the act of infringing copyrights, the P2P technology itself was not ruled illegal, as some media firms had hoped. This, like the shutdown of Napster almost six years ago, is yet another chapter in the ongoing battle between artists looking to protect their work and consumers wanting easy access to content — a scrap that has been made fiercer by the advent of digital technology.

"Copying and Copyright" by Hal Varian. *Journal of Economic Perspectives*, Spring 2005, vol. 19, no. 2, pp. 121-138.

A copyright grants a temporary monopoly to authors of literary, musical, or artistic works. With it, they reap the fruits of their labor for a specified period of time. This exclusivity ensures that the appropriate incentives are in place for people to create. But the age of digitization and the Internet has turned the usual legal protection afforded by copyright on its head. Nowadays, most newly created material starts life in digital form, making the cost of copying virtually zero and the quality of the reproduction near perfect. Moreover, new networking technologies advanced on the Internet have provided an easy, inexpensive, and almost seamless way of distributing content.

Might there be a way for authors and the firms that sell their work to survive in a world without effective copyright? In a recent paper, Hal Varian, an economics professor at the University of California at Berkeley, reckons so. An individual will only be willing to forego copying if the benefit of owning an original exceeds that of sharing. Transaction costs that may make copying inconvenient and undesirable, such as inferior reproductions and congestion due to the number of people waiting in line, force a wedge between the value of an original and a copy. However, as the introduction of a new technology begins to drive these costs down, the incentive to copying increases since there are now fewer barriers to obtaining a good reproduction.

A clever seller, according to Varian, will view the possibility of sharing much as it would a competitor, and therefore set the price of an original just low enough to make the consumer indifferent between buying and copying. At this price, copying is discouraged since purchasing an original is now at least as attractive as making a copy. However, some transaction costs are still important to the seller. Without them, the price and, by extension, the seller's profits will be pushed close to zero. Music and movie companies will naturally want to make these costs as high as possible to raise prices. Lobbying for stricter enforcement of anti-piracy laws and against technologies that make sharing easier are some of the ways of making copying more costly to consumers.

But there may be a smarter way of achieving the same goal. One way of increasing the wedge between the benefit derived from owning an original and a copy is to turn the original into a more valuable product instead of making the copy more expensive. In fact, the same technologies that some firms fear today can be used to their advantage by creating a better version of the original — an improved vintage that is a more desirable product to consumers.

Apple's iPod is one example of a successful innovation that has made buying an iTune (at 99 cents a piece) often more convenient than trying to download that song from the Internet. Apple has proven that a viable business model is achievable: It crossed the 1 billion song mark in February 2006, just three short years since it sold its first iTune.

One need not look too far back in history to realize that the digital revolution may actually present more of an opportunity than a threat to copyright holders. The radio was to end all live attendance at baseball games. The movie industry felt sick to its stomach when home video recorders were introduced. Hence, it may not be the best strategy to block technological innovation, as movie and music makers are doing with P2P today. This is especially true in cases when advances in digital technology can reduce the costs of creating and distributing content, which would allow consumers to pay much less for legitimate access in the future. Protection of content is essential to inspiring creative works, but guarding it too zealously may actually stifle new technologies that could bring enormous benefits to consumers, authors, and media companies alike. **RF**