Free Software Matters: Linux, the DVD, and the Law

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As I wrote in the last column, the central importance of free software—from my perspective both as an academic observer and as a lawyer involved in the free software movement's legal strategy—is its effect in changing who controls the switches, or information distribution devices, that comprise the network of networks we call "the Internet." Because free software is distributed under terms that guarantee that each user has access to source code, and can freely modify and redistribute that code however she or he likes, programs can be always be altered so that the information flow to and from individual users is under their own control.

Let's consider some of the implications of users' having complete control over how programs work. Control over the outbound information flow from the switch closest to your eyeball means protection for your privacy. It was revealed last year, for example, that Real Networks' Real Jukebox product, which many people used to organize and play their collections of music files, was secretly sending information to Real Networks concerning the music to which they listened. But a free software jukebox can't contain such secret features, because the code is openly readable by everyone. Even if you wouldn't be competent to read the source yourself to find out how such a program works, you can benefit from the skills of all the other users.

In this sense, free code *can* substitute for law: free software can provide users with protection for their privacy that would otherwise only be possible through laws restraining what the makers of proprietary software can include in their products. But laws can, of course, be violated, and discovery of violations may not occur until much harm has been done.

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More importantly, however, free software also gives users complete control over the *inbound* information flow to the switch closest to their eyeballs. This is the origin of an increasingly acrimonious legal controversy between the free software movement and the world's most powerful media corporations.

What the music and movie industries want to do, in their vision of the "Internet society," is to build a leak-proof pipe that carries multimedia products from their production studios to the eyeballs and eardrums of consumers. Nowhere along that path, if everything goes as planned, will anyone be able to make a copy of the goods in transit. This, the industries say, is absolutely necessary to the protection of their "intellectual property."

But if your computer—the one that plays your music or shows your movies to you—runs free software, you could change the player programs so that any sounds bound for the soundcard, or any video going to the monitor, would be saved or retransmitted. Any free software that interacts with technically-protected multimedia is therefore a threat to the current business intentions of the media giants. Without understanding the situation very clearly, those businesses have accordingly drifted into a war against free software developers who want Linux systems to support all common forms of digitally-distributed music and video.

The first round of that war is now being fought in the United States over DVD support for Linux. In several different lawsuits, the major movie studios and one of their trade associations have charged that the development of a Linux DVD player either results from theft of their trade secrets or violates the grandly-named Digital Millennium Copyrights Act—the DMCA—which prohibits "circumvention" of technical measures to protect copyrighted material. A Norwegian teenager named Jon Johansen has been arrested and is under criminal investigation for supposedly "reverse engineering" existing non-free software that plays DVDs on Windows computers, in order to understand how such a player works. The lawsuits in the United States seek to prevent any website, worldwide, from distributing the results of research by Johansen and other programmers directed at building free software DVD players.

The problem for the media companies, however, is that in seeking to enjoin distribution of free software they are attempting to suppress free speech. Among the parties they have sought to prevent from disseminating parts of the Linux DVD player are electronic news publications and academic researchers. The movie studios claim that under the DMCA statute, they have a right to eliminate all "unauthorized" DVD players as "piracy." They will have to convince the courts that copyright law not only allows them to prevent people from distributing unauthorized copies of movies, but also the technical information and programs that could be used to make player software of which they don't approve. In the end, they claim, they have a right to prevent you from playing a DVD you have legally purchased on a computer that belongs to you, unless you use an "approved" player program for the purpose. This argument—I and other lawyers defending the free software programmers believe—is not likely to succeed.

But whatever the results in the current DVD cases, the controversy is only beginning. The free software idea now finds itself in conflict with some very powerful organizations, for whom it turns out that having a monopolist in the business of making the only widely-used operating system for personal computers was very convenient. Microsoft was an ideal partner for the media companies, because its approach to software-making, which didn't give users any significant power of change or control, suited their design for the network of the future. This joins together the controversies over Linux DVD players, on the one hand, and the antitrust lawsuit to break up Microsoft, which I will write about next month.