Time to rethink digital copyright act

By Hiawatha Bray, Globe Staff, 1/13/2003

A lovely state, Kentucky, but not a place that’s generally in the forefront either of law or technology. As a matter of fact, it may just have taken a giant step backward.

Lexmark International Inc. of Lexington, Ky., is one of the world’s leading makers of computer printers. It’s a robust business, but one with a curious pricing model. Most printers are relatively cheap; it’s the replacement ink or toner cartridges that cost a fortune, and enable companies like Lexmark to turn a profit.

Inevitably, consumers griped about the high cost of replacement cartridges from Lexmark and other printer firms. And the used cartridges were perfectly good, except for needing a refill. So an industry was born - companies that collected the old cartridges, refilled them, and resold them for much less than the printer companies.

This enraged the printer makers, who can’t turn a profit without the extortionate revenues derived from cartridge sales. So they’ve tried to stifle the makers of aftermarket cartridges. Their ultimate weapon is a microchip built into the cartridges that cause them to malfunction if any attempt is made to reuse the cartridge. Some companies use chips that cause certain features of the printer to stop working. But Lexmark goes further, using a feature known to its critics as the ’’killer chip.’’ Use an unauthorized cartridge in some of their laser printers, and it just won’t work.

Unless the remanufactured cartridge has a replacement chip that works just fine with the printer. Static Control Components Inc., of Sanford, N.C., supplies such chips to cartridge recyclers. And for that, the company has fallen foul of a very foul law. Yes, once again, it’s that bane to technological innovation: the Digital Millennium Copyright Act.

This 1998 federal law was intended to prevent theft of digital movies, music, and software. To accomplish this, the DMCA made it a crime to circumvent any digital technology used by a company to protect its intellectual property.

For example, when the Russian software company Elcomsoft created a product that bypasses the security features of electronic book software from Adobe Systems Inc., the company called in the Feds. An Elcomsoft programmer visiting the United States was arrested and spent three weeks in jail. Elcomsoft was put on trial last month, in the first criminal prosecution under the DMCA. The jury was not impressed, finding the Russians not guilty.

Former federal computer crime prosecutor Peter Toren, now a partner at Sidley, Austin, Brown & Wood in New York, said most people have a hard time seeing anything wrong with writing software that circumvents someone else’s software. ’’There is a reluctance on the part of judges, jurors, and maybe even the general public to view this as criminal conduct,’’ Toren said.
Lexmark isn’t making quite the same mistake. The printer company has brought a civil case, and portions of it may have merit. The company claims that Static Control’s chips work because they contain unauthorized copies of Lexmark software. That’s a no-no. It’s legal to design original software that imitates someone else’s copyrighted code, but if Static Control merely copied Lexmark’s software, it’s in trouble.

But Lexmark goes even further. The company argues that any attempt to circumvent its killer chip system violates the DMCA. The Static Control chip lets a user access Lexmark’s printer software without Lexmark’s permission, and is therefore illegal.

So a law designed to keep hackers from distributing stolen digital merchandise is now a law against using a different brand of toner cartridges. Because the printer contains Lexmark code, only Lexmark cartridges can access it, and using off-brand replacements is now a form of hacking. Lovely as a snake, isn’t it?

You can see the future. Already some auto parts have chips embedded in them. Imagine a day when you can only replace a Ford headlamp with another Ford headlamp, or the car will stop running. Or imagine buying a house with nothing but Whirlpool appliances, designed so that a Kenmore fridge won’t work. Extreme? Sure. But perfectly legal, if Lexmark has its way.

Joseph Morelle, a software company owner and New York State assemblyman, is pushing for legislation to bar his state government from buying printers that use killer chips. If enough high-volume purchasers do the same, the issue could be rendered moot.

But just in case, the new Congress might rethink the DMCA, before it gives intellectual property - and Kentucky - a bad name.

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