Will your next computer work for you or for Walt Disney? The answer won't come from the big computer makers such as Dell or Compaq. This is a matter for that renowned engineering firm, the US Congress.

In late October, the Senate plans to hold a hearing on a bill that aims to redesign every PC, television set, and VCR sold in America, all in an effort to protect the intellectual property of Disney and Fox and Viacom and assorted other media titans.

Of course you've heard of copy protection - the use of clever software technologies to prevent the illegal copying of computer software, videos, recorded music, electronic books. Nice idea, in theory, but nobody's ever developed a method that works. Sooner or later, somebody finds a way to pick the digital locks.

But software protection becomes far more robust if the hardware pitches in to help. You build a microchip into the system that looks for a digital watermark on the software. The chip reads the watermark and then decides what the user can and can not do with the product. For instance, it might allow the user to make one copy, or five or none.

A couple of years ago, I jeered at Hillary Rosen, president of the Recording Industry Association of America, when she
described the concept during a phone chat. No way would computer firms such as IBM and Compaq and Dell build such intrusive hardware into their machines.

But if Democratic Senator Fritz Hollings of South Carolina has his way, they'll have no choice. He's working on a bill that'll make such copy-protection hardware mandatory in all digital playback devices, including PCs, digital televisions, and audio and video recorders.

Preston Padden, executive vice president of Walt Disney Co., says it's the only way to protect entertainment and software companies from massive theft of their most valuable products. Already, says Padden, thousands of full-length movies have been copied illegally and distributed over the Internet. Many consumers would buy legal copies, but the studios won't make them available unless they can protect their investments.

"There's a problem," Padden says, "and there's going to be a solution."

There's nothing new about the idea of building limitations into digital products. Hollywood likes to release its movies first in the United States, and later in the rest of the world - it evens out the cash flow. So British DVD players can't play disks issued in the US market, thereby forcing British viewers to wait a few extra months to rent "A.I."

However, it's legal for the Brits to buy players with US-compatible chips inside, and many of them do. There's no such escape clause under the Hollings plan, which would ban the sale of home electronics devices or computers that don't contain the copy protection chip.

One of the marvelous things about a PC is its unfettered potential. It's a blank slate, capable of doing anything it's programmed to do. Its only limits are the speed of its processor, the amount of memory and disk space, and the talent of the programmers.

I'm not too keen on a future in which every new computer comes with built-in limitations, enforced by a silicon deputy of the copyright police.

To be sure, hardware-based copy protection may not be practical. "I don't think there's any technology out there right now that's workable," says MIT computer scientist Ron Rivest, cofounder of RSA Data Security.
Indeed, the Hollings bill sets aside an 18-month period in which software and entertainment experts will work with computer and electronics mavens to devise an industry-standard copy protection method. But there's not a word about representatives of ordinary consumers.

This absence of public input could result in a system that works too well. Today, citizens are allowed to make personal backup copies of their favorite music recordings, or copy excerpts from books and magazines. In theory, copy-protection hardware could make this more difficult, or even impossible.

Padden says that he's "100 percent sure" that any mandatory copy-protection system will allow for limited copying rights. But there's nothing about this in the Hollings bill - at least not yet.

Even if it's modified to a more benign form, the Hollings bill represents a new phase in the efforts to enforce copyright law with a sledgehammer. Is it constitutional? Probably. Is it creepy? Definitely. Will it pass? That probably depends on us.

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