Community Notes

DIGITAL RIGHTS MANAGEMENT

Jon Masters follows the recent foibles surrounding DRM – Digital Rights Management – and gives a roundup of the latest news from a variety of Linux community groups. **BY JON MASTERS**

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February was a month filled with discussions around DRM. News stories, blogs, editorials, LUG discussions – you name it – DRM was a hot topic. It all started when Apple CEO Steve Jobs posted a blog-style editorial on the Apple corporate website defending Apple's much-publicized use of DRM technology in products like iTunes and the iPod. His editorial was timed, in part, to coincide with reports of mounting criticism in Europe of the difficulties faced by third parties who want to interoperate with the "FairPlay" DRM technology Apple uses to lock up its digital media. Did I say "lock up"? I'm sorry, I meant "protect you from yourself."

Free Software Foundation founder Richard Stallman calls DRM technology "Digital Restrictions Management" and believes that such technology poses one of the greatest threats to users of free software such as Linux.

In his editorial, Steve Jobs realized that no DRM system is perfect. In fact, he mentioned time and again how Apple plays a constant game of cat and mouse with those who seek to break Apple's DRM as fast as it is adapted to handle that circumvention.

Breaking the Technology

It's not hard to understand why the technology is regularly broken. Consider the average Linux user who just wants to play an iTunes protected media file on his or her system.

Right now, only two choices are available: remove the DRM or painfully run the iTunes software under an emulator of some kind. Neither is a particularly attractive solution.

Apple isn't the bad guy here, it's just a well-known implementor of DRM. The company has actually done us a favor by bringing up another round of discussions on the topic.

The next-generation AACS DRM system built into the latest generation of HD-DVD and BluRay discs has come under repeated criticism recently on many fronts.

First one, then another crack has been developed in the supposedly secure technology, which is somewhat reminiscent of the early days of DVD. Back then, it took the coordinated efforts of many bedroom developers to figure out how the CSS DRM system worked and to

extract keys from existing players to decrypt discs, which is what is happening with AACS now.

The good news is that it will only be a matter of time before Linux supports HD-DVD and BluRay.

Other Options

Given that all DRM systems seem to inevitably fall at the hands of those who would break them, it's a wonder that more people haven't realized the futility sooner. DRM isn't the only option available to the media companies.

In fact, a growing number of media companies are now realizing the folly of placing artificial digital restrictions on their consumers, which was the other big news on the DRM front this month. I'm not just talking about niche (and cool) music labels who "get it", including labels like Magnatune [1], which licenses DRM-free music under a Creative
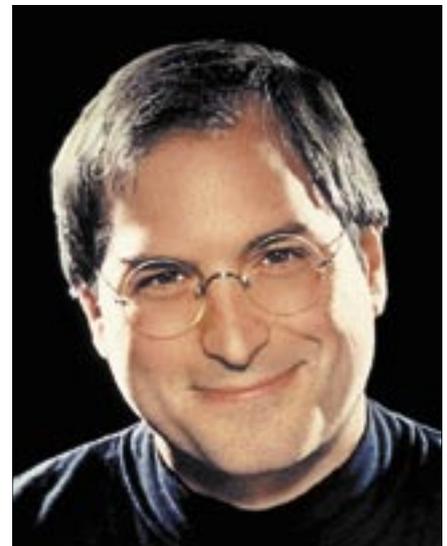
Figure 1: Apple CEO Steve Jobs.

Commons license. I'm also talking about other media megaliths like EMI deciding that DRM might not be such a good idea after all.

To start the ball rolling, and perhaps to ride the PR wave caused by this month's various DRM announcements, Canadian music company PureTracks announced that it will remove DRM from 50,000 music tracks that it sells online and also make the service available to non-Windows users [2].

Such moves are good news for all of us Linux users who want to be able to buy and download music just as much as our Windows- and Macintosh-using buddies do.

Software Patents

Of course, in the Linux community it's hardly possible to discuss DRM without inevitably entering a wider discussion of encumbered technology in general. That often means software patents get thrown into the discussion for good measure. Recently, several high-profile spats showed up on distribution mailing lists about the relative merits of providing support for particular patent-protected digital media formats.

Although we know that Linux is more than capable of MP3 and DVD playback, many Linux distributions don't provide these two capabilities out of the box for legal reasons. However, the problem is that those legal reasons for not shipping support for MP3 or DVD playback out of the box don't necessarily affect all users of the software.

Many people live in regions of the world in which these restrictions are un-enforceable because of the non-validity of software patents in those markets. Unfortunately, a Linux distribution must often be engineered to cater to the wider world, which often means to the United States in particular.

Still, some light does appear at the end of the tunnel thanks to companies like Fluendo [3], which announced in January that the company is now offering Linux users an easy-to-install set of GStreamer plugins. The inexpensive GStreamer plugins legitimately add support for patent-encumbered technologies such as MP3.

Not everyone is impressed, and some high-profile venting appeared on various mailing lists this month, but only so

Figure 2: John Buckman, founder and owner of Magnatune. Photo by Sheila Newbery.

much can be done while we continue to live in a world in which software patents and DRM technologies attempt to limit and control us.

Rather than complaining about the inadequacies of Linux, perhaps we should instead complain about the inadequacies of the world around us, which are really at fault here.

Summer of Code

Google has announced its third annual Summer Of Code (SoC) [4]. The company will begin accepting applications in March and already many community groups have gotten involved, including most of the major Linux distributions and major projects such as One Laptop Per Child.

In previous years, SoC has been criticized for the relatively small number of projects that live on once Google funding has ended – just 30% in the first year. Despite this, SoC has lead to a number of success stories, and more importantly, it really does help involve students in real-world open source projects.

OLPC

NYLUG hosted a session on the OLPC (One Laptop Per Child) project [5], including yet more detail about the initial XO-1 hardware that's about to be deployed to the first batch of governments in the developing world.

NYLUG wasn't the only group talking about OLPC this month. Having recently announced the Bitfrost specification – a

security model for OLPC with a difference – various groups discussed the relative merits of the extreme "sandboxing" that aims to make it impossible for any application running on the OLPC to wreak havoc.

The One Laptop Per Child project is really turning out to have some highly innovative technologies that just might see broader adoption over time.

Windows

On a final note, we in the Linux community often criticize Microsoft Windows for the high hardware requirements it seemingly requires.

Recently one "expert" suggested that Windows Vista's sweet spot comes in at roughly 4GB of RAM. However, I'm still getting over a story on Slashdot in the same week in which Windows XP was successfully installed on a under-clocked 8MHz original Pentium processor with 16MB of RAM. It just about worked. Many Linux distributions probably wouldn't have. ∎

INFO

[1] Magnatune:
http:// www.magnatune.com

[2] PureTracks:
http://www.puretracks.com

[3] Fluendo: *http://fluendo.com*

[4] Google Summer of Code:
http://code.google.com/soc/

[5] One Laptop Per Child:
http://www.laptop.org/