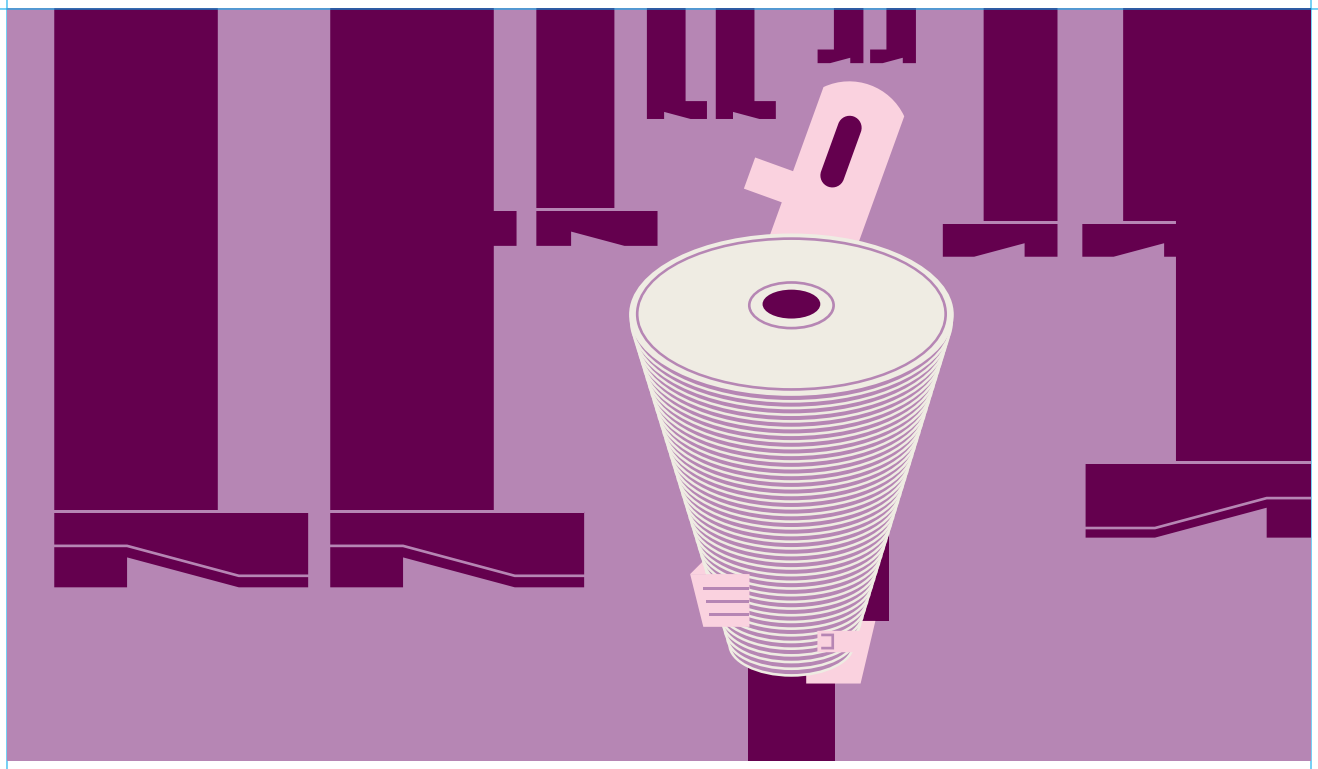

LEGISLATION

The Congressional Corral

The future of digital technology is in the hands of the U.S. Congress

BY PAMELA SAMUELSON

Rip. Mix. Burn. Empowering freedom...or simple piracy? For now, technologies for ripping, mixing, and burning are lawful to manufacture and distribute in the United States. But for how much longer? The motion picture industry, among other groups of copyright holders, wants Congress to mandate that standard technical protection be installed in all digital media devices. In March 2002, Senator Ernest ("Fritz") Hollings (D-S.C.), with the endorsement of Senator Dianne Feinstein (D-Calif.) and others, introduced legislation to do just that.

His Consumer Broadband and Digital Television Promotion Act (CBDTPA) would give representatives of technology companies, copyright holders, and consumer groups 12 months to agree on such "standard technical measures." The act would require the Federal Communications Commission (FCC) to conduct a rulemaking that would lead to the requirement that a standard protection measure be embedded in every digital media device. This latter term is broadly enough defined to include general-purpose computers. Making or distributing digital media devices without the standard measure, or removing or altering the measure, would be illegal and, if done for profit, would be a felony.

CBDTPA is unlikely to be enacted any time soon, now that the recording industry has allied itself with the Business Software Alliance and the Computer Systems Policy Project (both in Washington, D.C.) against government mandates of such measures. However, the motion picture industry may well persuade the FCC to adopt the so-called broadcast flag technology as a mandatory standard for digital TV tuners and related technologies; the FCC is considering it now. This would require tuners to recognize a digital flag embedded in broadcast signals indicating that the signals cannot be redistributed to any device lacking specified standard security measures. Makers of all sorts of products for home entertainment systems would be affected.

Philips Electronics North America Corp. (New York City) is not pleased with the proposed broadcast flag. In its reply to the FCC, it asserts that if the proposal were adopted, it "would require the FCC to impose an invasive regulatory regime affecting virtually all consumer electronics devices and computer equipment within the home network."

But such rules are not entirely new. Two government mandates of technical measures to protect copyrighted works already exist in U.S. law. One is the 1992 Audio Home Recording Act, which requires consumer digital audio recording devices to contain serial copy management system (SCMS) chips, which allow unlimited first-generation digital copies, but degrade second- and third-generation digital copies. The second is in the 1998 Digital Millennium Copyright Act (DMCA), which requires makers of videotape recorders to install

GREG MABLY

Macrovision's copy control technology to prevent unauthorized copying.

Universal adoption of standard technical protection measures could also come through standards-setting by industry groups. This would have virtually the same effect in the marketplace as a legislative mandate, but happen without input from consumers. For instance, the motion picture and consumer electronics industries reached agreement in 1995 on the content scramble system (CSS) as a standard technical protection measure for DVD discs and players. According to this agreement, CSS must be installed in all DVD players as a condition of the license granted for key patents on DVD components. Standards-setting processes concerning digital rights management (DRM) technologies, which identify content and restrict its usage as designated by the copyright holder, aim for similar results.

It's already against the law in the United States and some other nations to break copy protection like CSS, because the DMCA prohibits circumvention of technical measures used by copyright owners to control access to their works. (The European Union's directive on copyright and the information society forbids all acts of circumvention, and unlike the DMCA, it makes no exceptions, not even one for encryption research.) Related rules forbid manufac-

EUROPE

Europe's Regulatory Gridlock

As media-copying sprouts, Brussels fails to keep pace

BY JOHN BLAU

Europe may be known for its fast highways, of both the paved and information variety. But when it comes to establishing rules to protect copyright holders in the digital age, it is moving in the slow lane.

The legislative wheels of the European Union (EU), representing 15 countries speaking a dozen languages, never spin quickly, but what particularly troubles copyright holders is that the wheels seem to be slowing even as their revenue losses—which they blame on piracy—accelerate. European lawmakers are certainly aware that a problem exists. The EU estimates that 37 percent of its members' software—representing nearly 3 billion euros at retail prices—was acquired illegitimately. Music sales have dropped nearly 8 percent on average over the past two years; while causes are hard to pin down, the industry blames the rise of illegal online song-swapping services.

To protect copyright holders, the European Commission (EC, Brussels), the legislative arm of the EU, has put several new directives on the table. But these initiatives have yet to be approved by the European Parliament (Strasbourg, France), let alone be adopted by its member states. The initiatives concerning counterfeiting and copyright are the most salient, although neither one mandates the imposition of digital rights management (DRM), which, in the view of some, is essential to ensuring that copyright holders get paid for each and every easily made digital copy created—when, for example, a song is downloaded to a mobile phone or computer hard drive.

The new directive against counterfeiters was proposed by the EC at the end of January. Under the proposed law, counterfeiters in Europe would face criminal sanctions and fines amounting to double the proper retail value of each item they pirated, plus the illicit profits they reaped on the sale of copied goods. The proposal must

ture and distribution of technologies primarily produced to circumvent any access controls. Seemingly, Congress intended to allow reverse engineering of use or copy controls to enable fair and other noninfringing uses. But this intent has been undermined by widespread adoption of persistent access controls, such as CSS, so that any reverse engineering—even of one's own DVD to make a fair-use clip of a movie—arguably violates the DMCA rules. (Although the European Union directive contains no fair-use hacking exceptions, the laws of Australia and some other nations seem to permit it.)

Representative Zoe Lofgren (D-Calif.) introduced in the House a bill to amend the DMCA to allow such fair-use circumvention: the BALANCE (Benefit Authors without Limiting Advancement or Net Consumer Expectations) Act of 2003. Representative Rick Boucher (D-Va.) earlier introduced the Digital Media Consumers' Rights Act of 2002, which would permit circumvention for noninfringing purposes and also amend provisions against developing tools to allow scientific research that tight interpretations of the DMCA now make risky.

The outcome of these legislative battles is, at this point, not easy to predict. What can be foreseen is that it will affect not only what consumers do with technology, but also the very progress of technology itself. ●

be debated by the European Parliament and ministers from the 15 national governments. If passed, EU rules require that it eventually replace existing national legislation against counterfeiting.

As for the EU's copyright directive, a deadline for its adoption passed at the end of December with just two countries, Greece and Denmark, signing up. Many media and software companies see that slender support as a blow to deterring unauthorized duplication of their works across the Internet. After all, member states had 18 months to adopt the directive, which, like the U.S. Digital Millennium Copyright Act of 1998, is intended to better protect the distribution of film, music, and software across the Net and onto digital devices, such as mobile phones.

And, despite intense lobbying, the software, film, and music industries have to date failed to convince politicians that technological stopgaps, such as DRM systems, will work or are necessary. Instead, the industry has been holding workshops with the hope of arriving at an industry consensus on how best to implement DRM technology. The most recent workshop was on 25 March.

Industry: it's your move

The European Parliament has also held back from introducing DRM legislation. Arlene McCarthy, a member of the European Parliament from the UK, argues that there should be no legislation on this. Industry, she says, should take the lead. In her view, shared by many other European parliamentarians, legislating DRM "may not lead to the right technical specifications."

Pressure to achieve consensus is mounting on a second front. In January, executives from some of the biggest names in hardware and software, such as Microsoft, Hewlett-Packard, and Nokia, sent a letter to the EU requesting an end to an antiquated levy system imposed by several national governments on analog copying equipment, which they say is now being extended to blank CDs, recordable DVDs, CD writers, and even computers in some countries. A German collecting agent, VG Wort (Munich), recently tried to force Fujitsu Siemens Computers Holding BV, the largest PC maker in Germany, to pay royalties as high as €30 for every computer it sells.

The levy system was introduced decades ago to compensate rights holders for royalties lost to private copying of music, images, and movies. But charging levies isn't the best way to compensate rights holders in the digital age, say the hardware and software companies, all members of the European Information, Communications, and Consumer Technology Industry associations, in Brussels.

The new copyright directive leaves it up to member states whether they compensate rights holders with a levy or not. At present, six countries—Belgium, Germany, Greece, France, Italy, and Spain—impose taxes on recording materials, such as blank cassettes, and equipment, including video recorders, photocopiers, and fax machines. German consumers, for instance, pay an extra €1.28 for a CD recorder. Four other countries—Denmark, Finland, Sweden, and the Netherlands—tax recording materials only, not equipment. Ireland, Luxembourg, and the UK impose no levies.

"We'd like them to sort this issue out by themselves without us having to introduce legislation," says Per Haugaard, a spokesman for Erkki Liikanen, the commissioner for enterprise and the information society.

That approach may not work well. But as the U.S. experience attests, the alternative—to legislate first and work toward an industry consensus later—wouldn't be a smooth one, either. Witness the many lawsuits and protests over the 1998 Digital Millennium Copyright Act. ●

TO PROBE FURTHER

- On the 1998 Digital Millennium Copyright Act, see the Web at http://www.loc.gov/copyright/legislation/dmca.pdf and http://www.educause.edu/issues/dmca.html.
- Revisit the Betamax case at http://www.museum.tv/archives/etv/B/htmlB/betamaxcase/betamaxcase.htm.
- For a comprehensive list of links to material on technical and legal issues related to digital rights management systems, go to http://www.law.berkeley.edu/institutes/bclt/drm/resources.html.
- The Campaign for Digital Rights, an online consumer group concerned with fair use of digital media, is at http://ukcdr.org/issues/cd/. The Electronic Frontier Foundation is also involved in protecting consumer rights; see http://www.eff.org.
- The Recording Industry Association of America, at http://www.riaa.com, acts as a clearinghouse for information on piracy.
- Copy copy-protected CDs using http://www.fatchucks.com/z3.cd.faq.html (it lists all known such CDs). Bypass SafeAudio using http://www.cdfreaks.com/document. php3?Doc=48&Page=2.
- For many more links and references on copy protection, see the Spectrum Online Web site at http://www.spectrum.ieee.org.

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