

Cites & Insights

Crawford at Large

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A is for AAC: A Discursive Glossary

Eli Edwards asked a perfectly reasonable question about OpenURL. I attempted an email response, but also recognized that I throw around a fair number of abbreviations and specialized terms in *Cites & Insights*, rarely expanding them except on first use.

That thought—combined with some mandated vacation and my continued uncertainty as to how this is all going—resulted in this issue. It's certainly not complete (I didn't go back beyond 2003 for abbreviations), it's inconsistent (I name a few people and weblogs, but omit most of those I value), and I vary between pure description and opinion. (I hope this issue meets the second antonymic definition of "discursive," but you can be the judge.)

This issue is also my bid for Midwinter's LITA Top Technology Trends discussion. Some of the key terms—those with centered headings—represent areas I believe deserve attention as current "technology" trends that affect libraries and librarians. I also nominate my personal "top" technology trend.

The order is alphabetic. The contents list highlights key terms. "See alsos" are noted with small caps. A bracketed set of numbers indicates *some* back issues with significant discussions of the topic—but the annual index is a better source. All proposed legislation should be considered pending.

Here it is, from AAC to zine.

A through C

AAC

Advanced Audio Coding, the form of lossy compression used by Apple iTunes. Supposedly offers better audio quality than MP3 at the same bitrate. Any form of lossy audio compression at aggressive rates (e.g., 128k) will yield audible differences in some music, to some people, at some times. [4:1]

AAP

American Association of Publishers. Friends to libraries on most issues (particularly when freedom to

publish and censorware issues are raised), not so much in other cases (when AAP segments argue against open access publishing or when officials suggest that libraries might use fair use at the expense of publisher profit). The dichotomy may be inherent in an association that's aligned to Big Media in some ways but in a medium with many more significant competitors, and with many more members, than the other big media associations.

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ACCOPS

The Author, Consumer, and Computer Owner Protection and Security Act of 2003, HR 2752, introduced by Howard Berman. While the press release for the bill talks about the "growing scourge of illegal activity on the Internet" such as "identity theft, distribution of child pornography, unlicensed drug sales...stalking, fraud, trademark counterfeiting, and financial crimes," the bill is really about one such "scourge": "Online copyright piracy, in particular, has gotten out of control." With very minor exceptions, the proposed legislation is about infringement. It pushes for more enforcement of copyright laws, lowers the bar for felonious infringement (by saying that placing an unauthorized copyrighted work on an accessible network is *considered* to be the distribu-

tion of at least 10 copies worth more than \$2,500!), makes it criminal to offer “enabling software for downloading over the Internet” without prior consent and conspicuous warning, criminalizes pseudonymous or anonymous domain registry, and makes it a crime to “camcord” a motion picture within a theater. The last clause deals with a prime tool of *real* pirates. The first few offer bigger hammers for RIAA, MPAA and others to use—and would have horrendous collateral damage. [3:10]

ALAWON

The *ALA Washington Office Newsletter*, an irregular free electronic newsletter distributed through its own list. Valuable to keep track of legislation related to librarianship. The ALA Washington Office website is also a valuable place to check on library-related legislative issues.

ALPSP

The Association of Learned and Professional Society Publishers, a trade association for *not-for-profit* publishers. Publishes *Learned Publishing*, a quarterly print and online publication that offers free online access excluding the current volume. While it would be silly to say that all ALPSP members are good guys (some “nonprofit” societies and publishers still charge outrageous subscription prices—and the institutional subscription price for *Learned Publishing* is more than twice the individual subscription price), ALPSP is by design much more open to change and alternative models than its for-profit equivalents.

ARL

The Association of Research Libraries, a membership organization of America’s leading research libraries. Deeply involved in copyright, scholarly access, and related issues. Publishes the *ARL Bimonthly Report* (available on the web).

BALANCE

The Benefit Authors without Limiting Advancement or Net Consumer Expectations (BALANCE) Act of 2003, introduced by Congresswoman Zoë Lofgren of California’s Silicon Valley. The proposed legislation asserts that the authors of the DMCA did not intend a dramatic shift in the balance of copyright rights, noting a key clause in the House Judiciary Committee report at the time:

[A]n individual [should] not be able to circumvent in order to gain unauthorized access to a work, *but [should] be able to do so in order to make fair use of a work which he or she has acquired lawfully.*

The BALANCE Act would exempt acts taken for archival purposes and for non-public performance or display, and would negate enforcement of “nonnegotiable license terms” that restrict those rights. It

would recognize “digital first sale,” that the owner of a copy of a work should be able to transfer that ownership through sale or other disposal as long as the original owner does not retain a usable copy. The act would also legalize circumvention of technological measures for non-infringing uses where the copyright owner hasn’t made those uses possible without additional cost or burden, and would legalize manufacture and sale of such circumventions. The Consumer Electronics Association, ALA, ARL, and others support the legislation.

Bell, Steven J.

Librarian, writer, eloquent exponent of a semi-traditional perspective on keeping up and making your own thoughts known. Bell’s no more a Luddite than I am (probably less so), but he believes that traditional media and methods continue to be important. Bell writes thoughtful articles and comments, as appropriate—and will also comment, cogently and with more light than heat, on other comments and responses. The “two Stevens” (Bell and Cohen), each of whom has a worthwhile presentation on keeping up for librarians, are sometimes at odds, almost always in interesting manners.

Berman bill

Any of several bills suggested or introduced by Howard Berman (D-Hollywood). Berman’s bills would at one time or another have made it legal for the RIAA (and others) to hack the computers of anyone suspected of having infringing downloads. Berman’s statements make it clear that, in his mind, copyright holders should hold all the cards: He speaks of their “exclusive rights” to make decisions relating to use of anything to which they hold copyright.

big deal

An extreme form of BUNDLING, exemplified by Reed Elsevier’s offers to campuses and consortia to provide electronic access to a much larger number of journals than are currently subscribed to in print, for a steadily-increasing price, with severe penalties if *any* of the print subscriptions are cancelled.

Big Media

My term for several small groups of companies: the biggest record publishers, the biggest broadcasting conglomerates, the biggest movie studios. Big Media tends to act as a single force in copyright-related issues and tends to view fair use as an annoyance to their complete and absolute control over “their” creations.

Block, Marylaine

“Librarian without walls” and inspiration to many. Had she not started *Ex Libris* years earlier, I might

never have started *Cites & Insights*. *EX LIBRIS* has the virtues of brevity, wit, clarity and content; it's a must weekly visit as far as I'm concerned. Also the inspiration for COWLZ.

BOAI

Budapest Open Access Initiative—a major international push for open access. In some ways, BOAI pushes for a Grand Solution to scholarly access. I've criticized the approach and questioned elements of the BOAI FAQ at some length; Peter Suber has responded to those comments, and the colloquy continued for some time. It's fair to say that I still believe: Grand Solutions don't work; open access journals and open access archives are both important parts of making access to scholarship work better; both have strengths and weaknesses; and neither one or both will or should represent complete solutions. [2:9, 10, 13; 3:3, 4, 13]

Boucher, Rick

If Howard Berman is the prototypical Big Media representative, Rick Boucher (D-Va.) has been a strong advocate for restoring balance to copyright. His proposed legislation has included the Digital Media Consumers' Rights Act and others.

broadcast flag

A Big Media initiative that would undermine convergence, possibly undermine general-purpose personal computing, and swing copyright even further in the direction of total control by the rightsholders. The FCC has approved the broadcast flag, pending final reading. There will most surely be efforts both in Congress and in the courts to overturn the decision. Expect a big essay or two in the near future, possibly even a special issue. [3:1, 5]

bundling

Providing several related goods or services at a significant discount over all the elements priced individually. A common and frequently beneficial practice in library acquisitions and most other areas of commerce, dangerous only when (a) it's used as a weapon to freeze out competition (as is frequently claimed for Microsoft's bundling of applications with Windows) or (b) it's used in a way that damages the long-term flexibility and resources of the buyer (as is being suggested for BIG DEALS).

Carver, Blake

Mr. LISNEWS and founder of LISHost. It was a pleasure to meet Carver (and Jessamyn West and a number of other folks) in person in Toronto last summer. Carver's done a lot to make weblogs a vital part of keeping up with library news and trends (I

would say "more than anyone else," but Jessamyn West has also been critically important).

CBDTPA

The Consumer Broadband and Digital Television Promotion Act of 2002 (had it passed), introduced by Sen. Fritz Hollings(D-SC). The key provision of CBDTPA is that pretty much every digital device would be legally required to include undefeatable copyright-protection circuitry defined by the government. Which digital devices? "Any hardware or software that reproduces, displays, or 'retrieves or accesses' any kind of copyrighted work." Since anything having fixed expression is copyrighted, that means any hardware or software that can access, copy, or display *any* digital file. The bill included remarkably few remnants of fair use. Supposedly, this bill was needed so we'd all buy broadband and digital TVs, which we're not doing because there's not enough content out there, and there's not enough content because we're all pirates. (I'm paraphrasing here.) CBDTPA was born of SSSCA (no longer using national security as an excuse) and, to some extent, became the BROADCAST FLAG. [2:7, 9, 14; 3:1, 3]

CD

Shorthand for Compact Disc or, really, Compact Disc Digital Audio, currently the most popular sound recording medium. Roughly 20 years old. To be called a CD, a disc must follow the Red Book specification (a licensed standard from Philips & Sony, developers of CD), which does not allow for copy protection. Thus, *Cites & Insights* calls audio discs with copy protection pseudo-CDs and Philips has expressed a willingness to sue publishers that use the CD logo on copy-protected discs.

CDL

California Digital Library, the "tenth campus library" for the University of California. CDL purchases and provides ejournals and other forms of access for the nine UC campuses and maintains Melvyl, a statewide union catalog. CDL is known for work in the standards arena, and most recently drew attention through its statement that it's paying \$8 million for Elsevier ejournal access, half of *all* the money it spends on ejournals.

ensorware

A more accurate term for "filtering" as applied to the Internet, since such software works by censoring particular addresses and language.

CIPA

The Children's Internet Protection Act, which *is* law now that it's been upheld by the Supreme Court.

The act mandates that any library receiving federal funds through either of two programs must have censorware (“filters”) installed on *all* computers capable of Internet access, including staff computers—but only to prevent access to *images* in three categories: child pornography, obscenity, and “material harmful to children” (which equates to child pornography or obscenity with age-appropriateness added).

As the Supreme Court upheld CIPA, they also gutted it for adults. An adult may request that censorware be entirely disabled during a browsing session for research or any other legal purpose, and the opinions make it clear that the justices expect that librarians will not question the request and that there will be no undue delay in disabling the filter. ALA’s still paying the legal bills for fighting CIPA (and in the end gutting much of its harmful potential) and could still use your contributions. [3:9—and many other issues before that.]

CLIR

Council on Library and Information Resources. Geezers like me may know this as CLR; the “Information” wasn’t always there. CLIR funds useful studies and reports and takes part in various initiatives relating to libraries and access to information. Under their earlier name, they also commissioned J.C.R. Licklider’s *Libraries of the Future*, which in 1961 essentially recommended that print books ought to disappear, as their physicality “makes them intrinsically inefficient means for storing, organizing, and retrieving information.” Live and learn.

Cohen, Steven M.

A librarian, weblogger (LIBRARY STUFF) and self-proclaimed “RSS bigot.” He created the RSS feed for *Cites & Insights*. The other half of the “keeping up Stevens,” along with STEVEN J. BELL.

compulsory licensing

The most prominent alternative compensation system for copyright holders. Here’s a good quick summary, the beginning of a worthwhile three-page discussion at notabug.com/2002/acs/:

With every passing day, online music downloading becomes more prevalent and industry countermeasures become more odious. What if there were a compromise that paid artists while letting you get music however you wanted? This is the idea behind “alternative compensation systems” and “compulsory licensing.”

Here’s the proposal in a nutshell: Some group of people pay a small fee (like a couple dollars a month). In return, they can download whatever they want, however they want. We track what is downloaded and then distribute the money received, in proportion, to the people responsible for the

songs. Everybody wins: users get all the music they want, software developers can continue innovating, and the industry gets paid.

A lot of people are putting together detailed proposals for compulsory licensing. There have even been conferences on the topic. If you print off the “notabug” paper, you’ll see a more elaborate proposal and a *few* objections, although almost all of the objections raised are ones for which there are pat answers. (I won’t say “straw men”...) This proposal would add a \$3 to \$5 monthly charge to all broadband ISP connections and would pay based on how often songs are played, not downloaded. Others would add charges to *all* internet connections

Do you see some problems even with the brief quotation? For example, the first sentence: By most reports, *infringing* online music downloading has decreased substantially—and I hardly think that people should be expected to pay a surcharge so they can *legally* download (and pay for) music. There are loads of problems with the tracking mechanisms, including the need for a broadcast flag equivalent and entirely new equipment: No existing MP3 player (or CD player once you’ve burned the MP3 to an audio CD) will track and report the currently-nonexistent “fingerprints.”

The most fundamental problem, however, is that the system assumes we’re all thieves. If 40% of broadband users are currently downloading illegally (there’s no evidence of a number that high), then 60% of users are subsidizing the illegality of the others—even if the 60% prefer to buy music by the CD, don’t want the low-quality MP3 that most infringing files offer, or just don’t buy much music.

I’ll be writing more about compulsory licensing, I suspect. I’m astonished at the extent to which the discussion seems to focus on the details (troublesome as they are) rather than the fundamental questions. Given the success of legal downloading systems, given that people are *still* buying billions of dollars worth of CDs, given that the distinction between a “personal” broadband connection and a “business” broadband connection is nearly impossible to make these days, why on earth are people busily refining a system that shouldn’t be necessary?

CSLDRMAA

The Consumers, Schools, and Libraries Digital Rights Management Awareness Act of 2003, proposed by Sen. Sam Brownback (R-KA). The act would require digital media rightsholders to file “John Doe lawsuits” in order to obtain identifying information on an Internet user and would also call for labeling on any digital medium protected by DRM. The first provision weakens one of the ugliest aspects of DMCA, and naturally RIAA immediately

attacked the bill with the note that “The DMCA was a carefully crafted compromise.” *Sure* it was. (The courts may have solved this particular problem, at least temporarily.)

COPA

The Child Online Protection Act, Congress’ second attempt to regulate pornography on the Internet. COPA has been struck down as unconstitutional, twice, but the Justice Department keeps trying to resurrect it. A predecessor to CIPA, with broader implications. [3:8]

copyleft

Cute name for the licensing method in GPL, the Gnu General Public License. Copyleft is a “general method for making a program free software and requiring all modified and extended versions of the program to be free software as well,” according to the Gnu website (www.gnu.org). Copyleft as applied to software means that (a) the source code for the software must be freely available, (b) the software itself must be freely available, (c) most significantly, GPL is a pass-through license: Any software that *incorporates* GPL-licensed software must adhere to the same conditions. You can’t use GPL-licensed code in a program, then make that program proprietary. The GPL license does *not* place software in the public domain: “free” and “public domain” are not synonyms. SCO’s CEO argues that copyleft is unconstitutional. [4:1]

copyright

“The Congress shall have power to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive rights to their respective writing and discoveries.”

That’s what the U.S. Constitution says and that’s the legal basis for American copyright and patent law. Note “limited times” and that rights are granted to authors and inventors, not intermediaries. Established law in the U.S. is that facts cannot be copyrighted.

Currently, U.S. copyright protects all works as soon as they are “fixed” (saved to disk, recorded to tape, whatever), with no registration, publication, or copyright notice required. Works created by an individual are protected for the life of the creator plus 70 years (so dead composers and writers are *really* motivated to keep working!), while corporate works (those done “for hire” by employees or otherwise protected at the corporate level, including most motion pictures) are protected for 95 years.

U.S. copyright law also includes explicit recognition of fair use—those cases where you can reasona-

bly use someone else’s work without notice or payment—but as a set of principles rather than a set of specifications. Most of the controversies surrounding copyright (and discussed in *Cites & Insights*) fall into these areas:

- Attempts to restrict fair use through digital rights management, licensing, and other method.
- An apparent ongoing attempt to make copyright eternal on the installment plan, adding another 20 years at 20-year intervals.
- Inappropriate use of copyright
- Whether laws should be passed that *assume* we’re all thieves and compensate copyright holders appropriately.

Discussions of copyright tend to be confounded by the three general approaches to copyright (and “intellectual property” in general):

- **Strong copyright**, the view that copyright is a property right and the rights of the owner (or licensee) outweigh all other considerations. Strong copyright adherents almost always use scare quotes around fair use and, at extremes, push for the “right” of copyright holders to control each and every use of copyright material. Think MPAA, RIAA and—unfortunately—most of Congress.
- **No copyright**, the view that creation should be its own reward, creative works should enter the public domain immediately, and creators should earn their livings through public appearances, live shows, or day jobs. A recent variant is based on the idea that, since digital streams can be copied with such ease, there’s no point in attempting to protect copyright—and therefore it should be abolished. This is the “Since everybody speeds, and since it’s impossible to thoroughly enforce speed limits, there should be no speed limits” approach. Spokespeople for strong-copyright groups tend to assert that anyone who isn’t a strong-copyright adherent is a no-copyright activist.
- **Balanced copyright** or **weak copyright**, the view that creators should have the ability to benefit from their creations for some reasonable period of time, but that copyright should be a temporary status on the way to public domain—and that the rights of the creator or licensee must be balanced against the rights of the user and the need for new creations. This middle range covers a wide variety of specific views, and includes positions taken by ALA and other library associations, Creative Commons, Public

Knowledge, CreateChange, and a growing number of elected officials including Rick Boucher, Zoë Lofgren and Barbara Boxer.

COWLZ

The Coalition/Consortium/Committee/Coven(?) Of Web-based Library-related Zines and newsletters. Marylaine Block had the idea: to make the ongoing gray literature of librarianship—the newsletters and zines—more visible and try to assure their longevity after the creators disappeared. I tried to start things going [2:7, 8, 13]. Some infrastructure is in place: A website (thanks to Dan Lester and Boise State) and (thanks to Eric Lease Morgan) an index and self-maintaining dark archive for some of those publications. And, to be sure, the new (permanent?) home for *Cites & Insights* [3:1]. Will there be more than that? Wait and see, I guess.[3:12]

Creative Commons

An organization attempting to rebuild the public domain, enhance access to creative works, and encourage creativity by establishing flexible, customizable intellectual-property licenses. Lawrence Lessig chairs the group, which began in early 2002 [2:5]. *Cites & Insights* operates with a Creative Commons “attribution-noncommercial” license, which means anyone’s free to use any or all of an issue as long as that use is attributed and they’re not charging for the reuse. BioMed Central uses the attribution license for its Open Access journals. A new range of licenses addresses derivation rights, particularly important for music.

CSS

Content Scrambling System, one of two forms of copy protection used on most commercial DVDs. Only players and computer programs with appropriate licenses are authorized to unscramble CSS. “deCSS,” a tiny little computer program that unscrambles CSS, was developed so that people could watch the DVDs they owned on their Linux computers (for which no DVD software was available), and quickly became a flashpoint for DMCA enforcement. deCSS is apparently illegal in the U.S.

CTEA

The Sonny Bono Copyright Term Extension Act of 1998, which extended U.S. copyright from its previous “life of the creator plus 50 years, or 75 years for corporate works” to “life plus 70, or 95 years for corporate works.” CTEA extends *existing* copyrights, not just copyrights for new works. The timing is interesting because the first Mickey Mouse cartoon appeared in 1927 and would have entered the public domain in 2002. Named as a memorial to Sonny Bono, who was a congressman many years after

Sonny & Cher (his widow Mary is still in Congress, and seems to believe in infinite copyright).

ELDRED V ASHCROFT was an attempt to overturn the extension (at least for works about to enter the public domain) on Constitutional grounds, led by Lawrence (Larry) Lessig. The attempt failed, with the Supreme Court ruling 7-2 to uphold CTEA. CREATIVE COMMONS may have emerged because of *Eldred v Ashcroft*, and it seems likely that the next attempt to extend copyright will receive much more public attention than the last one. The next attempt seems likely to come somewhere between 2016 and 2018—a few years before Mickey Mouse reaches 95. [3:3 and elsewhere]

D through H

DLF

Digital Library Federation, a group of universities and others heavily involved in developing and doing research on “digital libraries.”

DMCA

Digital Millennium Copyright Act, perhaps the most important unbalancing of copyright toward the “copyright community” (other than continued term extension). Briefly, among its other provisions, DMCA makes it illegal to create or promulgate information on anything that could circumvent digital copy protection or digital rights enforcement mechanisms.

Write an algorithm that decrypts encrypted digital material: That’s a crime under DMCA. *Publish an article* that points to that algorithm, and you can be charged with a DMCA violation.

Prior to DMCA, you had to infringe to be guilty of a copyright-related crime. DMCA makes it criminal to create tools that (whatever their other uses) *could* be used to infringe on copyright, even if they are never used for that purpose.

ED FELTEN was threatened with a DMCA charge by the RIAA because he solved a challenge relating to “secure” digital music and wanted to publish the results; one result was the invaluable Freedom to Tinker weblog. Dmitry Sklyarov did entirely legal programming (in Russia) for ElcomSoft, writing a program that unlocks Adobe Acrobat eBook protections; he was arrested at a U.S. hacking conference as part of DMCA charges.

EFF, the Electronic Frontier Foundation (www.eff.org) offers a detailed summary of harm done by DMCA, with the general title “Unintended consequences.” Congress apparently believed that

DMCA would be used primarily to fight commercial piracy. Instead, it threatens fair use and the ability to do research in a number of areas. Some elected officials recognize that DMCA requires revision, but that process is slow and (so far) unlikely.

DMCA includes a provision that the Librarian of Congress will hold hearings every three years and issue specific exemptions to the anti-circumvention clause based on those hearings. Why the Librarian of Congress? Because the Copyright Office is part of LC. The second round of hearings resulted in four exemptions relating to censorware, obsolete software, and ebooks that can't be used by the visually impaired. [4:1 and many before]

DMCRA

The Digital Media Consumers' Rights Act, HR 107, one of Rick Boucher's proposals to moderate some of the worst of DMCA's provisions. DMCRA would explicitly protect research and would permit circumvention of copy protection in order to exercise fair use rights. It would also require proper labeling for copy-protected pseudo-CDs. [3:3]

DRM

Digital Rights Management (or "digital restrictions management" if you're a weak-copyright person). Any software or hardware system to control use of digital media, which inherently means restricting usage. DRM can undermine fair use, limit first sale rights, and make effective digital preservation difficult or impossible. It can also, depending on its characteristics, be an essential and useful ingredient in digital dissemination.

DVD

DVD stands for DVD. That is, "DVD" does not *officially* stand for anything, although it was expanded to "Digital Video Disc" and, later, "Digital Versatile Disc" while it was being developed. DVD is probably the fastest-growing entertainment medium ever, having reached a majority of U.S. homes in the six or seven years since it was introduced. It's both a blessing for libraries and a problem. It provides much higher-quality pictures and sound than VHS, loads of extras, better prices, and, by providing the picture as it was filmed rather than in a cropped version and allowing frame-by-frame study, offers a much better medium for the study of film and TV. Taking up much less space than videocassettes and costing much less to replicate and ship, DVD is also restoring many movies and TV shows in packages that would not otherwise be available or affordable. (I recently purchased a set of 50 "classic" movies on 14 two-sided DVDs for \$20, provided in a box that uses 1.5" of shelf space. Presumably, both the pub-

lisher and retailer made profits on the deal. Compare that to a *minimum* of 50" shelf space for 50 videocassettes, which would cost considerably more than \$20 just to replicate.) It's also a great way to practice other languages, given the multiple soundtracks and subtitles on most commercial discs. On the other hand, DVDs—while less subject to damage during normal use than VHS—are susceptible to damage through careless handling, and some public library patrons seem to feel that the shiny discs are suitable playthings for children and pets.

A DVD disc is the same size (12cm or 4.72" diameter, *not* 5" or 5.25") and thickness as a CD, with the same polycarbonate layer covering the recording layer, and both are read by lasers. There the resemblance ends. A DVD disc may have recording layers on one or both sides, and there may be two layers on either or both sides. A single layer can hold up to 4.7GB (gigabytes) of data; a two-sided double-layer DVD can hold up to 18GB. By comparison, today's CDs can hold up to 700MB, just over one-seventh as much as a single-layer one-sided DVD. [2:11 has a brief history.]

"Super DVDs" are on the horizon, using blue lasers to provide enough storage capacity for high-definition movies (at least 25 to 30GB per side). Almost certainly, super-DVD players will play DVDs, just as all DVD players also play CDs.

Most commercial DVDs use three restrictive methodologies, two of them comparable to those for videocassettes. *Region encoding* (provided on cassettes through different means) means that discs purchased in Europe or Japan won't play on players purchased in the U.S. or Canada (and vice-versa), for example. It's intended to allow movie publishers to roll out movies in theaters and DVDs at different times in different areas. Thanks to commercial piracy, region encoding may become less relevant over time. *CSS* (which see) provides rudimentary copy protection through content scrambling. *Macrovision* encoding assures that home VCRs won't copy most commercial DVDs for the same reason that you can't copy a commercial videocassette onto a blank cassette.

Recordable DVDs come in five varieties: DVD-RAM (used mostly for data), DVD-R and DVD+R (record-once), and DVD-RW and DVD+RW (rewritable). The format differences arise because of licensing, speed, and compatibility issues, but drive manufacturers are working to make the plus-and-minus distinctions somewhat irrelevant: A growing number of DVD writers or burners can handle all recordable DVDs except, usually, DVD-RAM. The other four varieties will *usually* play on regular DVD players, but not always. [4:1]

ebooks

That simple word covers a confounding variety of digital technologies, some of which are already successful and some of which may never succeed. If someone asks, “Will ebooks succeed, fail, or just hang on?” the answer is “Yes.” The nine-part view of ebooks I set forth in *American Libraries* 31:8 (September 2000) is, although woefully oversimplified, still as good a breakdown as I’ve seen (sez he, humbly as ever).

ebook appliances

The deadest duck in the ebook pond, the one that’s generated the most hype and the least sales. Most notoriously, Gemstar and the REB successors to the Rocket eBook and Softbook [1:2]. There have been several other dedicated (single-purpose) ebook appliances; most have either failed or never entered full production. While some of us continue to see potential for a dedicated ebook appliance (or reader, or just ebook) for K12 or higher education, a truly effective book equivalent at a reasonable price seems no nearer now than it was a decade ago: Always “two years from now,” once technology solves all the problems. Note that the failure of ebook appliances does *not* mean the failure of digital text or “ebooks” as a whole. Some people even read booklength texts on the low-resolution screens of personal digital assistants, and the best notebook computers are half-way to providing near-book resolution. (That last half—going from 150dpi to 300dpi—may take a long time, since it’s taken more than a decade to get from 96 to 150dpi, but at least it’s progress.)

Edwards, Eli

Mentioned here for two good reasons: This San Jose State library school student asked the question that triggered this special issue—and I really do owe Ms. Edwards an apology for calling her “Mr. Edwards” in responding to feedback.[3:5] I have no excuse. Sure, “Eli” is an ambiguous name, but “~misseli” in the address could have been a clue, I suppose. Edwards writes the “Confessions of a Mad Librarian” weblog.

EFF

Electronic Frontier Foundation. Loads of information (and *The EFFector*) on their website. Generally a strong pro-consumer, anti-regulation, weak copyright voice on policy and legal issues: In most cases, I’d find myself on the same side as EFF. At the moment, I have mixed feelings about the group. Its recent publicity campaign regarding peer-to-peer networking seems to say that it’s OK to steal as long as 60 million other people are doing it. I find that unacceptable. Ethics should not be a popularity contest,

and EFF should not condone theft in its urge to change policy. Nonetheless, EFF does good work.

Eldred Act

Also known as the Eric Eldred Act or, formally, the Public Domain Enhancement Act (PDEA), HR 2601. Larry Lessig suggested the idea in early 2003, as the Supreme Court upheld CTEA. California congresswoman Zoë Lofgren introduced the bill on June 25, 2003, “to amend Title 17, United States Code, to allow abandoned copyrighted works to enter the public domain after 50 years.” The proposed changes in copyright law boil down to these two clauses:

“The Register of Copyrights shall charge a fee of \$1 for maintaining in force the copyright in any published United States work. The fee shall be due 50 years after the date of first publication or on December 31, 2004, whichever occurs later, and every 10 years thereafter until the end of the copyright term.” If the fee isn’t paid within a six-month grace period, copyright expires. Payment of the fee for a work also maintains copyright in ancillary and promotional work.

“The maintenance fee...shall be accompanied by a form... The form may be used to satisfy the registration provisions...”

One buck, each ten years, *after* the first 50 years. Registration, *after* 50 years. Registration makes it possible to find copyright holders to license their work. No registration, no buck, and work goes into the public domain—after the creator has had fifty years to profit from it. This is a good idea, and one that should not (but will) be controversial. [3:10]

Eldred v Ashcroft

The case that raised the profile of copyright imbalance. Eric Eldred has a website with the texts of classic books, poems and essays in the public domain. He and copetitioners argued that Congress overreached its constitutional authority by passing CTEA (which see) and extending copyright yet again. Lawrence Lessig served as chief counsel. Eventually, the Supreme Court upheld CTEA 7:2, but the issues raised will continue to be discussed. [2:5, 7, 14, 15; 3:3]

Ex Libris or ExLibris

I’m never sure which form to use, but in either case it’s MARYLAINE BLOCK’s usually-weekly zine: One good essay (or interview) with a few extras. Always interesting, usually enlightening.

EZ-D

“DivX, only worse!” That was my heading for a June 2003 commentary on EZ-D, Disney’s name for Flexplay’s “limited-play DVDs.” They’re DVDs with

a special coating: Open the airtight package and you can play them as much as you want. For 48 hours. Then they're unplayable and you throw them away (or, supposedly, recycle them). Disney tried selling these environmental wonders for \$5 to \$7—which the *New York Times* called “close enough to the cost of a typical DVD rental.” I guess prices really are higher in New York! The discs don't include any commentaries or other extras. Disney's idea is to peddle the self-destructing discs at convenience stores and gas stations so Disney gets more of the revenue. My guess is that Disney and FlexPlay have overestimated the gullibility of the public.

fair use

The principle that some uses of copyright material are legitimate and may be done without permission from the COPYRIGHT holder. Strong copyright advocates tend to put scare quotes around the two words as if to deny that there's really such a thing as fair use. DMCA, DRM, and proposed laws would generally restrict fair use by substituting controls wielded by copyright holders. While fair use is a set of principles, it's also a law, albeit a somewhat less-than-specific law—Section 107 of Title 17 of the U.S. Code (that is, copyright law):

Sec. 107. - Limitations on exclusive rights: Fair use

Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section, for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include -

- (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (2) the nature of the copyrighted work;
- (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (4) the effect of the use upon the potential market for or value of the copyrighted work.

The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.

FCC

The Federal Communications Commission. As we're now discovering with the BROADCAST FLAG, the FCC can be used by Big Media to do an end run around Congress. [3:1, 5; major piece coming soon.]

Felten, Ed

Princeton professor whose research team cracked the watermarks proposed for the Secure Digital Music Initiative. When he planned to give a paper on the research at a conference, the RIAA threatened him with a DMCA lawsuit. When he proposed to countersue, the RIAA backed off and mooted the case by claiming they'd never intended to sue. One excellent outcome of all this nonsense: Ed Felten started the FREEDOM TO TINKER weblog, a great source of thoughtful, down-to-earth commentary on issues relating to digital media, copyright, and society.

FEPP

Free Expression Policy Project. This project, www.fepproject.org, maintains first-rate ongoing studies on various aspects of free expression, including copyright and other issues. Among other things, the site maintains a Supreme Court watch on the status of cases related to expression.

Finkelstein, Seth

A consulting programmer and censorware activist and researcher; you'll find lots more at sethf.com, including Finkelstein's own weblog. *Cites & Insights* uses “censorware” rather than “filters” after reading and considering Finkelstein's arguments. He has provided valuable research results on how censorware actually works. He's also gotten into trouble in various ways, including interpersonal issues with other people in the censorware-research field (I wasn't there, I don't know the whole story) and various threats of legal action from censorware companies. Finkelstein was primarily responsible for the renewed DMCA exemption for decrypting censorware banned-site lists—but, given a lack of institutional backing and the constant threat of legal action, he's apparently dropping out of active research in that field. (Also one of the most active *Cites & Insights* correspondents, whose acute analysis frequently exposes my sloppy thinking and writing.)

FOS

Free Online Scholarship—the name and initialism used by PETER SUBER for his weblog, list, and newsletter on what's now called OPEN ACCESS. If you're looking at scholarly access-related material prior to September 2003, you're likely to find much of it under FOS.

Freedom to Tinker

ED FELTEN's invaluable weblog.

GPL

Gnu Public License, the “copyleft” license used by Linux and quite a bit of other open source software. See copyleft. (GPS, Global Positioning System, has

nothing to do with GPL and isn't a topic covered by *Cites & Insights*. Although, as cruisers, my wife and I appreciate the existence of GPS—noting that the best cruise lines still require their captains to locate their ships by sextant at least once a month, since *no* systems are entirely foolproof.)

I through O

inevitability

Unless you're discussing death, don't tell *me* "it's inevitable." Provide convincing arguments. Make a case. Taxes aren't inevitable. Neither are the death of the book, the end of privacy, the complete success of open access archiving, "mobile everything," or much of anything else I've heard described as inevitable.

Information Access Alliance

A new initiative sponsored by AALL, ALA, ACRL, ARL, the Medical Library Association (there are so *many* MLAs), and SPARC. The focus appears to be the need for more stringent antitrust review when examining mergers in the STM serial publishing industry. IAA's site is at www.informationaccess.org and has several white papers.

KTD

Kids These Days. KTD and the spelled-out phrase represent my offhand summary of an "argument" made by many advocates of digital-everything, convergence, the death of books, and so on. The argument has many variations, but says (among other things) that the next generation grew up with computer screens and is *more* comfortable reading from the screen than from the page; that the next generation both assumes and demands "digital everything" and will settle for nothing less; that the next generation has short attention spans; and that the way young people behave today is the way they will always behave. In essence, KTD proponents believe that today's young people are mutants, and the rest of us must plan to redo everything to suit their preferences. (I'm simplifying KTD arguments and to that extent these are strawmen, but all of these are based on real KTD arguments I've read and heard.)

To my mind, KTD ranks right up there with "inevitable" as a way to foreclose serious discussion and to win arguments without actual evidence. KTD don't read books? Tell publishers—not just Scholastic (*Harry Potter*) but the others, since children's books and juvenile literature are among the healthiest segments of publishing. Tell librarians that they must not be circulating many books to kids these

days; public librarians can use a good laugh now and then. Ask kids and teenagers, and you'll get the complicated, nuanced answers you'd expect from real people (as opposed to the cardboard cutouts of KTD arguments). Yes, today's kids and teenagers are more comfortable with technology than we were back then—how could they not be? One result, from what I've seen, is that fewer of them fall in love with technology for its own sake: They recognize tools for what they are.

Beyond that, the idea that the habits, desires, and needs of a generation don't change as they age is truly novel and belied by pretty much all of recent history. To a greater or lesser extent, we all become our own parents. That's just as likely with younger generations as it is with older ones. That's one reason that grandparents seem to understand kids better than their parents do: The grandparents have already seen the changes happen.

Am I saying we should ignore the new pressures faced by today's young people and assume that they'll be *just the same* as we are when they grow older? Of course not: We don't grow to be exact duplicates of our parents. We are changed by technological innovation, and we have different ways of incorporating it into our lives. But most of us do just that: we incorporate the technologies that serve us; we don't transform our lives to serve the technologies. I expect that to continue.

LBPRBPA

The Library, Bookseller, and Personal Records Privacy Act, introduced by Senator Feingold (D-WI) and eight other senators. This act would amend the USA PATRIOT act "to protect the privacy of law-abiding Americans and set reasonable limits on the federal government's access to library, bookseller, medical, and other sensitive, personal information." (Quoting ALA Washington Office commentary.) Section 1 would restore the requirement that the FBI offer facts that give reason to believe a named person is a suspected spy or terrorist before gaining access to library or other private records.[3:12]

Lessig, Lawrence (Larry)

Lead counsel for *Eldred v Ashcroft* (which see), chair of CREATIVE COMMONS. High-profile advocate of the public domain and weak copyright, with a high-profile weblog.

Levine, Jenny

The SHIFTED LIBRARIAN. That's her weblog, her description of herself, and her prescription for what other librarians need to do to serve the next generations. Go to her site for the whole thesis; I'm a frequent critic of Levine's enthusiasms (which I

sometimes find excessive and too heavy on KTD arguments), so any paraphrase from here might be unfair. For some time, her weblog was epic in the number and length of postings, but times have (temporarily at least) changed.

While I frequently disagree with the Shifted Librarian's assertions and attitudes (and usually do *not* discuss those disagreements here), I also respect her energy and ideas. When we disagree, I usually acknowledge (at least privately) that she may be right—and I always try to suggest that people consider her arguments on their own merits, not dismiss them simply because I disagree.

Library and Personal Records Privacy Act

Earlier name for LBPRBPA.

Library Juice

It's not a weblog, it's a newsletter: Rory Litwin's pure-text distribution, currently fortnightly. *Library Juice* is considerably to my left on the library-politics spectrum, but I wouldn't miss an issue—and Litwin has indirectly humanized SRRT for me.

Library Stuff

STEVEN M. COHEN's weblog (and, preceded by "The," my running title for citations in the library literature). As with Levine, I frequently disagree with Cohen but always find his work valuable. His weblog has recently concentrated on tools (RSS, weblog-ging) used to keep up with library happenings rather than the library happenings themselves.

LISNews

The most important multi-author weblog in the library community. Begun by BLAKE CARVER, the site now has a number of moderators, hundreds of contributors, and thousands of readers. The moderators are ecumenical in their posting habits (anyone can suggest a story, but only moderators can post them), and the site (based on slashcode) offers robust threaded commenting and lots of extras. Unfortunately, anonymous and pseudonymous commenting seems to have brought out the ./ types, but there's a lot of good stuff mixed in with the usual right-wing nonsense.

LITA Top Technology Trends

What it's *not*: An authoritative statement of technology trends that should concern librarians, with input from industry sources and so much expertise that it can't possibly be wrong. What it is: There's a LITA committee, established a few years ago. That committee selected roughly a dozen LITA members who seem to have some insight into the technology trends that matter for librarians—either because of their jobs, because of their readings, or for other rea-

sons. (They may have selected even more, since I don't know how many people declined invitations.) Since the group began, a few of the "trendspotters" have retired or quit for other reasons, and a few others have been added.

The trendspotters get together with the committee during ALA Midwinter Meeting for a fairly long morning of freewheeling discussion. It's an open meeting—that's ALA policy—but it's primarily designed to allow the trendspotters to exchange ideas and insights, then to winnow suggestions down to a reasonable number of topics or trends. The committee members take copious notes, check the list of trends with the trendspotters, prepare brief bibliographies and descriptions for each trend, and post it all on the LITA website.

During ALA Annual, there's a shorter session in the form of a panel discussion, with the panelists anticipating a sizable audience and preparing accordingly. That session also yields a trend report on the LITA site, which may or may not be similar to the previous Midwinter's report.

That's it. There's no magic. Some LITA trendspotters really do have lots of contacts in the halls of power and technology; others—myself, for example—observe and read a lot, but can't claim any special inside knowledge. I don't know whether some trendspotters send their ideas out for review by corporate contacts, but I'd be very surprised. It's an informal group and is offering up some things to think about, not an agenda to follow.

I'm rarely very well prepared as a trendspotter, because I don't claim to know what this year's trends are. This year is a little different: Some of the centered headings in this special issue represent my candidates for trends and issues that I believe to be important right now. And you'll find my candidate for *the* TOP TECHNOLOGY TREND under that name.

LOCKSS

Lots Of Copies Keep Stuff Safe. This "cooperative archiving solution for ejournals" is centered at Stanford University and (I believe) has considerable potential as one of many partial solutions for digital archiving. Briefly, LOCKSS would establish multiple full-text archives of journals at various universities that work on a self-healing basis: Each archive would be in contact with others and could restore any lost data from one of the others. The archives could be dark (that is, not directly accessible) for currently-published journals where the publisher does not allow open access, but would be even more effective for Open Access journals (and priced journals that allow open access after an embargo period). I was immediately taken with the concept when the first

article I encountered by one of its leaders included the following:

The LOCKSS system will clearly not be the unique and ultimate solution to all e-archiving, or even all e-journal archiving, requirements. It is important that this *not* be the case. We are emphatic in our distaste for monolithic structures!

It's so unusual for a project leader to disown the concept of Grand Solutions!

MP3

MPEG-1 audio layer 3. That's the formal definition. Essentially, MP3 defines an envelope for a variety of lossy data compression and decompression schemes, with the assumption that what's being encoded and decoded represents sound. That assumption is necessary to make the lossy compression work: It's based on a set of assumptions about how people hear. The assumptions are based on testing, but that doesn't mean they're equally true for all listeners. Basically, most people won't hear certain sounds when other sounds are also present: These "masked" sounds can be stripped out of a piece of music or speech without damaging the listening experience. The more aggressive the compression, the more commonly people will hear the effects.

There are quite a few different MP3 "codecs" (compression/decompression routines) of varying effectiveness, and most MP3 software allows a variety of compression ratios, possibly involving variable compression. Most P2P downloading of music uses MP3 because it's compact. Through a combination of sloppy journalism and general deafness or inattention to detail, the most popular MP3 encoding rate (128Kbps, roughly one-twelfth of the data rate for an audio CD) is generally called "CD quality," which it is not. Originally, the common term was "near CD quality," which allows for argument as to "nearness." I believe that most people with reasonably good hearing and careful attention to detail can hear differences between CDs and their 128K MP3 equivalent on most music. It gets a lot harder at higher data rates; at rates such as 196K or 320K (the rate I currently use for ripping from my own CDs), only the most golden-eared or self-deluded listeners will be able to tell the difference *on most music, on most playback systems*. If you can't hear the difference between 128K MP3 and audio CD, that's fine for you—but don't tell me that all music should therefore be distributed in such degraded form.

MPAA

The Motion Picture Association of America, one of two quintessential Big Media groups. It represents the largest studios (which are not all American-owned corporation, any more than RIAA's members)

and has been remarkably effective in Washington, thanks in part to that silver fox Jack Valenti. The MPAA bitterly opposed VCRs, and some people in the field *still* argue that the Betamax decision was a terrible mistake. Amazingly, even though videocassettes resulted in vastly higher revenues for movie studios, they continue to oppose any new medium that might allow any form of fair use by consumers. The MPAA is also a major player in seeing to it that copyright goes on forever.

MPEG

Moving Pictures Experts Group. This group has established several standards for compressing and distributing moving pictures:

- MPEG-1 is what you saw on most CD-ROMs (and VCDs, popular in Asia but almost unheard of in the U.S.): Mediocre video at a very low bitrate. "Sub-VHS" is the kindest word for MPEG-1.
- MPEG-2 is what you see on DVDs. When the compression is performed by expert systems (and experts), typically using a two-pass process, the results can be magnificent, particularly when you consider that MPEG-2 is *extremely* lossy compression, throwing away most of the original data in a movie. When the compression is too extreme or is handled badly, you get a variety of artifacts, including splotchy rectangles of color and loss of detail. Most personal video recorders and DVD burners allow a range of MPEG-2 data rates; only the highest is DVD quality. (It's worth noting that Sony is rereleasing some movies as "Superbit" DVDs, where they leave off all the extra features and use lower compression rates than normal DVDs. Most careful watchers report that Superbit DVDs do look better.) MPEG-2 can be extended to handle high-definition television.
- MPEG-4 is fairly new, designed to provide different bitrates for a single video object as needed for different uses. It's not clear when or if MPEG-4 will offer serious competition to MPEG-2 for high-quality video.

OAI

The Open Archives Initiative. Among other things, OAI establishes a standard for metadata in institutional and topical article archives, so that the metadata can be harvested by an OAI harvester.

OAIster

An Open Archives index based at the University of Michigan, using OAI harvesting to build an index of papers stored in a variety of institutional and topical

archives (or “self-archives,” if you prefer). As of December 4, 2003, OAIster indexed nearly 2.3 million articles from 243 institutions. At least one OpenURL resolver can search OAIster to identify full-text sources for articles.

open access

Frequently capitalized (Open Access) by its promoters and sometimes by its opponents. The fundamental principal of open access is that scholarly research should be freely available to anyone who can use it, at no direct cost to the reader. In practice, that currently means two different initiatives:

- Open Access publishing, in which there is no charge for electronic access to the published journals (or collections of articles). The most widely-publicized form of Open Access publishing is “producer-pays” or “author-pays” publishing, in which authors, their institutions, or provisions in research grants pay a fee for accepted articles (with grant or other methods to underwrite authors unable to pay the fee)—but there have also been refereed scholarly eJournals for more than a decade in which all work is done on a volunteer basis and, typically, a university or other institution provides the small support costs, so that neither author nor reader pays a direct charge. To the extent that open access journals supplant traditional journals, they could ease the financial problems that have broken the scholarly access system. To the extent that such journals simply add to the proliferation of scholarly journals and least-publishable-unit papers, they will add to the problems faced by libraries and their parent institutions. Time will tell.
- Author-initiated article archiving in institutional or topical archives adhering to a standard set of protocols for metadata so that it’s possible to build common indexes that harvest the metadata from many archives. Article archives may consist of fully-edited versions by agreement with the journal publishers or, without such agreement, can consist of “preprints” with change files attached.

OpenURL

It’s simple, except that it isn’t. I devoted a book to MARC, a book to standards in general, and a book to desktop publishing. Right now, I can’t even see a way to make a book *work* for OpenURL (although the notion of some collaborative online explanation and presentation hasn’t disappeared entirely). Here’s a little essay on how OpenURL works.

Briefly, an **OpenURL transaction** requires that an **OpenURL source** generate an **OpenURL message** (usually because a user clicks on an **OpenURL trigger** and send it to an **OpenURL resolver** identified by an **OpenURL base address**. The resolver processes the message using a **knowledge base and rule sets** and generates some number of **OpenURL services**, some of which use **OpenURL targets**.

Now, let’s look at each of those boldfaced elements—starting with the missing piece, the OpenURL protocol itself.

The **OpenURL metadata protocol** defines a set of elements to identify a bibliographic item (and a few other things) and a syntax to put those elements together and do something with them. OpenURL 0.1 provides for a base address (nothing more than a regular URL, pointing to a piece of software somewhere) and such items as author’s last name, author’s first name or initial, title of an article, title of a journal or book, ISSN or ISBN, and date, volume, issue, and pages of a journal (or book) on which an article (or chapter) resides. It also provides ways to identify who’s creating the information.

In order for a library or consortium to use OpenURL, it must buy, build, or subscribe to an **OpenURL resolver** (sometimes known as a “link resolver”), and buy, build, or edit the **knowledge base and rule set** that will support the library or consortium:

- The **knowledge base** typically includes all serials known to the library or its OpenURL vendor (or a third party), including titles, ISSNs, and whether (and how) the library or consortium can provide full text, abstracts, or other information on articles within each serial. The latter portion can appear multiply—one serial may be available through half a dozen different full-text sources—and includes date ranges, restrictions (“all volumes since 1980, but not including the last five years”), and access methodology (both the technical details and whether full text within a given resource can be addressed directly at the article level, only at the issue level, only at the journal level, or—in at least one well-known case—only at the front door to the entire full-text service).
- The **rule set** is used to determine what **OpenURL services** to offer and in what order, based on the metadata contained within the **OpenURL message** and what’s in the knowledge base. The rule set may also include special provisions for some **OpenURL sources** (special parsing of metadata because of known issues, for example). So, for exam-

ple, if a given periodical for a given year is available from several sources, the rule set should determine which source to list first. If a search is offered against a local or union catalog, the rule set should determine what *kind* of search to do (and whether to offer choices to the user.) The rule set should also include provisions for incomplete OpenURL transactions (either because of faulty OpenURL sources or because the databases underlying the sources don't have full information) and sets of services to offer when neither full text nor print holdings are available (e.g., populating an ILL request, searching open archive harvesters, searching the title in Google or AllTheWeb or, for a book, searching the ISBN in a commercial service, searching the author's name in some service).

The library or consortium must then activate OpenURL with each desired OpenURL source, directly or indirectly, which involves providing the **OpenURL base address** (the Internet location at which the resolver is to be found, which may be at the library or hosted by a vendor) and, usually, providing another address for the **OpenURL trigger** image, although most OpenURL sources should provide a default trigger as well. (RLG's Eureka uses "Availability" as a default.)

Here's what happens when a library user is searching a database and wants more information about a particular article, book chapter, journal, or book:

- 1. The user clicks on the **OpenURL trigger**, which should appear above or next to each record.
- 2. The database provider, an **OpenURL source**, generates an **OpenURL message**: An address consisting of the **OpenURL base address** for the library or consortium and the **OpenURL metadata** for the desired item. The source then opens a new browser window with that transaction as an address. The OpenURL source's role in the transaction is now complete.
- 3. The **OpenURL resolver** then processes the **OpenURL message** against its **rule set** and **knowledge base**. Depending on the rule set and resolver design, the resolver may also carry out some operations in advance—e.g., doing a catalog search automatically.
- 4. The **OpenURL resolver** populates the browser window with some set of **OpenURL services** (or a message that no services are available for the item), in an order deter-

mined by the rule set. The resolver also, in most cases, provides a page heading identifying the institution or consortium and a redisplay of the requested item. In cases where presearching is done, the results of the catalog search will also appear in the browser window. **Services** appear as live links—to full text sources, to online catalog searches, to Google, to ILL forms.

- 5. The user selects an **OpenURL service**, which will either replace the resolver window or open another window. Unless the user goes back for a different service, that completes the OpenURL transaction. With luck, the user now has full text for an article (or book, in a few thousand cases), identification of print holdings, or some other satisfactory service.

What about **OpenURL targets**? That's really anything that an OpenURL resolver can point to—and there's no need for the target to know anything about OpenURL. For example, many databases understand Z39.50 search and retrieval syntax, and make appropriate targets without OpenURL awareness. Some target resources may support OpenURL syntax directly.

This not-so-brief description oversimplifies the range of possibilities; I'm sure OpenURL experts will let me know where I've gone badly wrong. Note that the key element, the **OpenURL resolver**, may be home grown (as some of the best are), purchased from one of ten or more vendors, or used on a subscription basis with the actual resolver running at the vendor's site. The crucial knowledge base may come from the same vendor or some other source; "jake" is the best known open source knowledge base. Every knowledge base requires local customization, since no library's set of resources perfectly matches any other library.

Put that together and it means better use of a library's resources. Just click and see what's available.

OpenURL 1.0, which should soon reach balloting as a NISO standard, adds more formality and a whole new set of possibilities—and that's another story, one not suitable for this treatment.

P through Z

P2P

Peer-to-peer networking, that is, sharing digital files directly between different end-user computers rather than through uploading to master servers and downloading from such servers. P2P networking has

any number of legitimate uses, but Strong Copyright groups tend to demonize the technology as nothing more than a tool for copyright infringement. P2P networking is no more “all about stealing” than crowbars are “all about breaking and entering.” Oddly, police departments don’t attempt to shut down hardware stores for selling crowbars, but a number of legislators think that the government should find ways to shut down P2P networks.

PASA

The Public Access to Science Act of 2003, HR 2613, also known as the Sabo bill. Introduced by Rep. Sabo (D-Minn.), apparently at the urging of PLoS. Here are the key elements:

(1) IN GENERAL.—Copyright protection under this title is not available for any work produced pursuant to scientific research substantially funded by the Federal Government to the extent provided in the funding agreement entered into by the relevant Federal agency pursuant to paragraph (2) [Which requires a provision in funding agreements that states that copyright protection is not available for work pursuant to the research]

Sec. 4. Sense of Congress: It is the sense of the Congress that any Federal department or agency that enters into funding agreements...should make every effort to develop and support mechanisms for making the published results of the research conducted pursuant to the agreements freely and easily available to the scientific community, the private sector, physicians, and the public.

In other words, Federally-funded scientific research should not be protected by copyright and should be openly accessible. This proposal is the only justification I know of for the claims by traditional publishers that Open Access implies giving up copyright. It doesn’t. To me, the stickiest point in PASA is “substantially funded.” Anyone familiar with CIPA should recognize that Federal initiatives have a camel’s-nose effect: Would 15% be defined as “substantial”? I was also surprised to see the assertion in the bill that the U.S. government “spends \$45,000,000,000 a year to support scientific and medical research whose product is new knowledge for the public benefit.” \$45 billion (U.S.)! [3:11]

peer review

I always thought that meant double-blind refereeing of scholarly papers: That is, the referees don’t know who wrote the paper and the author doesn’t know who’s reviewing the paper. True peer review is at the heart of scholarly journal publishing; at its best, it should level the field between newcomers and established researchers while protecting the integrity of the publishing enterprise. Unfortunately, not all peer review is double blind (some journals leave the

names of the authors on papers), and some publications that claim to be peer reviewed have submission-to-approval cycles that appear incompatible with true double-blind peer review. The water is muddied further because some “traditional” journal publishers (or “toll-access publishers” in the Open Access jargon) have asserted that Open Access publishers don’t carry out proper peer review. I have never seen evidence to suggest that this is a valid charge—but some of the same publishers also assert that Open Access means giving up copyright, which is simply false.

PLoS

Public Library of Science, the most heavily publicized (perhaps over-publicized) development in Open Access publishing. PLoS began with a petition in which 30,000 scientists said they wouldn’t submit papers to, referee for, or serve on the editorial boards of journals that didn’t make published articles freely available in electronic form. The publishers called their bluff, and at least 99% of the signatories folded. PLoS returned as a combined hype and publishing effort, with a \$1,500 article charge that’s the highest of any known Open Access publisher (three times as high as BioMed Central, for example) and a seemingly endless stream of publicity stunts. *PLoS Biology* has begun, a monthly that’s free in electronic form and available in print for a modest charge. Others will follow. [4:1 and before.]

PoD

Print on demand, that is, production of books either in very short runs as needed or one at a time as they are sold. Most forecasts for large ebook sales include PoD as part of EBOOKS, although the end result of PoD is a bound, toner-on-paper/ink-on-paper, physical book that is in no sense an ebook. (Yes, it begins as a digital markup—but so does almost every other book these days.) PoD already constitutes a multi-million-dollar marketplace. Proponents believe that packaged PoD production systems will come down in price and complexity enough so that thousands of bookstores and, possibly, libraries will have their own in-house PoD. Order a book, get a cup of coffee, and pick up the book: Freshly printed and bound in an order of one. Some proponents with publishing industry experience believe that PoD could entirely supplant traditional offset or webbed publishing, although the costs per copy seem likely to be higher for a very long time to come.

producer-pays publishing

See OPEN ACCESS.

Prosser model

A split option for STM journals, one already in use by some entomology journals. If an author (or institution) elects to pay a publication charge, the article becomes open to all readers, free, immediately upon publication. If the author or institution does not pay a publication charge, the article is only available to subscribers (or through other paid provisions such as aggregators). This hybrid model, proposed by David Prosser, offers a way for journals to experiment with OPEN ACCESS and its implications for revenue and readership, without abandoning their current revenue streams. See *UKSG Serials-eNews* for March 5, 2003 (www.biblio-tech.com/UKSG/) and Peter Suber's commentary in a March 21, 2003 posting on what was then the FOS News weblog and is now the Open Access weblog.

Protecting Children from Peer-to-Peer Pornography Act of 2003

Porn sells—particularly when it comes to misleading names for legislation. This proposal, HR2885, introduced by Reps. Pitts, John, Sullivan, Pence, and DeMint, has the following summary:

To prohibit the distribution of peer-to-peer file trading software in interstate commerce.

Note the absence of “child” and “pornography” in that sentence. “Child pornography” is certainly featured in the findings section, but not at all in the legislation itself. Fundamentally, the bill would prohibit all noncommercial P2P software. [3:13]

pseudo-CDs

My term for any sound recording that looks like a Compact Disc but adds mechanisms to attempt to discourage or prevent copying. Such mechanisms violate the Red Book, the license under which all CDs are produced, and can't properly be called Compact Discs. There is no such thing as a copy-protected CD; they're all pseudo-CDs.

public domain

Where Disney gathered the raw material for many of the studio's finest animated movies (and some live-action ones)—but Disney, among others, is now devoted to making sure that nobody else will be able to build on previous creations in that manner. Creations enter the public domain in three ways:

- When copyright expires. That meant 28 years for a long time. Now it means “life of the creator plus 70 years” or “95 years if it's a corporate creation”—with nobody willing to take a bet that Congress won't make those numbers “90” and “115” in another copyright term extension act, some time

around 2018. The way things are going, copyright for most material published after 1918 may *never* expire.

- Because the material was generated by the Federal Government. Such material is always in the public domain within the United States, but not necessarily worldwide.
- Because the creators or copyright holders have explicitly dedicated the material to the public domain, using a Creative Commons “no rights reserved” license or some other methodology. If you believe the arguments of SCO's chairman, dedicating material to the public domain might be considered treasonous or at least unconstitutional, since it interferes with the holy profit motive enshrined in copyright.

Materials in the public domain may be used at will: copied, distributed, sold as part of new packages, and used as the foundations for new creations. Most musicians, artists, and writers have always looked to earlier works for inspiration; the public domain, which used to grow at a steady and predictable rate, made it feasible to use such inspiration without becoming embroiled in license negotiations.

Public Knowledge

This organization is a recently-organized “public-interest advocacy organization dedicated to fortifying and defending a vibrant information commons.” (www.publicknowledge.org). The group has four broad goals related to intellectual property, retaining an open market, and open Internet architecture. See their website for much more.

RIAA

The Recording Industry Association of America, one of the Big Media groups. It's not *all* of the record publishing companies, just the biggest (the “big five,” which may soon become the “big four”). The RIAA blames downloading for any loss of sales, refusing to admit that lousy music, high prices, and awful record store environments might have something to do with it. The RIAA seems to regard its customers as thieves, and is taking delight in suing dozens (hundreds?) of them—although, in some of those cases, those being sued *are* thieves. (I dislike the RIAA. I dislike copyright infringement. You got a problem with that?)

RSS

Really Simple Syndication. Or Rich Site Summary. Or RDF Site Summary. If that's confusing, so is the RSS scene, possibly because there are two competing RSS specifications from two entirely different groups. *PC Magazine* 22:23 (December 30, 2003),

which includes a quick summary of RSS tools in Cade Metz' "Take back the Net" roundup, says that a new and improved spec may replace both current competing RSS specs—and that most RSS tools publish and read both specs in any case. So what's RSS all about? Better you should ask Steven Cohen, Karen Schneider, Jenny Levine, or one of the other RSS advocates (or "RSS bigots," in the phrase some of them use). Here's Cade Metz' summary:

RSS is a way of syndicating information across the Internet. Think of it as a protocol for sending and receiving online news feeds. You can equip your blog with an RSS feed, distributing recent changes to your readers. Or you can use an "RSS aggregator" to collect fresh material for your blog, grabbing RSS feeds from all sorts of Web sites, including news pages, portals, and e-tailers—not to mention other blogs.

I don't use RSS at the moment, so that's as much as I know. Except that some people sure are committed to the idea that *everything* should come via their RSS aggregator.

Sabo bill

See PASA.

scholarly access

The existing "scholarly access system"—that is, the system through which scholars (and non-scholars, for that matter) gain access to the articles and monographs written by other scholars—is broken. That system relies on a complex web of for-profit, not-for-profit, and society publishers to publish the articles and monographs, on a combination of publishers and aggregators (usually but not necessarily for-profit) to provide electronic access to those journals and monographs that appear in print form, and a combination of personal and library subscriptions and purchases to provide access.

Let me narrow that: The system for access to STM scholarship (science, technology, and medicine) is broken, and the breakage of that system in turn threatens the rest of scholarly access.

It's broken because the prices for access are too high for *any* university library to be able to provide comprehensive access, even to the primary fields for that university. With the growth of new disciplines, many of which cross boundaries of older disciplines, the problem just gets worse, and a seemingly uncontrollable proliferation of new journals and more articles (frequently covering smaller and smaller elements of research) doesn't help. Add to that the aggressive pricing and substantial market control of a few mostly-European STM publishers, Reed Elsevier the largest and most obvious, and we have a situation in which libraries can't keep up and cer-

tainly can't maintain the long print runs that scholars have traditionally required. Online access in lieu of print can be a stopgap measure, one that certainly improves access to current materials but, given the nature of most licenses, can endanger long-term access. And while it's easy to pick on Elsevier, Kluwer and friends, quite a few society publishers also engage in aggressive pricing ("gouging" may be a good synonym), using library subscriptions to subsidize other operations of the organization.

It doesn't have to be this way. Many scholarly societies charge fair prices for their publications, either offering them at the same price to libraries as to members or adding a reasonable surcharge for the added costs of dealing with institutional subscriptions. Some for-profit publishers are in it first for the publishing, trying to make enough money to keep doing what they love but certainly placing the scholarship ahead of the profit. A variety of initiatives—free online refereed journals, Open Access journals, SPARC's promotion of less-expensive journals—can help. In the humanities, the price increases and journal proliferation have generally been moderate, and monographs continue to be key to the scholarship—but too many libraries have little money left over for monographs or inexpensive humanities journals after they've been ripped off for STM costs.

The system is broken. Libraries need ways to survive. Open Access almost certainly provides some portions of a set of solutions, but Open Access doesn't directly address the issue of library costs (until and unless OA journals actually *replace* high-cost journals).

With that grumpy introduction, see OPEN ACCESS.

Scholarly Electronic Publishing Weblog

While I'm certainly not mentioning every weblog I visit regularly, Charles W. Bailey, Jr.'s effort deserves recognition. Bailey founded *Public-Access Computer Systems Review*, one of the library field's earliest free refereed journals (begun 1990, strong through 1997, now officially ceased), and the Public-Access Computer Systems List that began before the journal and continues to this day. He's maintained a *Scholarly Electronic Publishing Bibliography* for a very long time, and uses weekly entries in the weblog to note new material, much of which will wind up in the next formal update to the bibliography. An impressive long-term effort at info.lib.uh.edu/sep/sepw.htm.

SCO

Formerly the Santa Cruz Operation, a company that used to be one of the innovators and distributors in the Linux field but seems to have turned into an Intellectual Property Company. SCO purchased

Unix system V and is now claiming that Linux infringes on the Unix copyrights—and, along the way, that GPL is unconstitutional.[4:1]

SED

Surface-conduction electron-emitter display. A new possible replacement for cathode ray tubes, one that uses CRT principles. One glass plate is coated with a film containing huge numbers of tiny electron emitters, which fire to another phosphor-coated glass plate a few millimeters away. The result can be large, flat panels less than four inches deep, using about half the power of CRTs or one-third the power of plasma displays (you do know that plasmas are power hogs?), with ultra-high resolution. Canon and Toshiba have been developing the technology; Toshiba claims that SEDs will appear in the marketplace this year. Variations of this technology have been promised for years now. Since no display technology other than CRTs provides true blacks or the widest possible color spectrum, I hope this one makes it to the market. [3:10]

Shifted Librarian

One of the more provocative (and, for a while, voluminous) weblogs in the library field—also its author, JENNY LEVINE. The weblog has consistently pushed the limits of fair-use quotation from other weblogs and other sources, and has a strongly technocentric and portable-oriented stance. I question much of what's in it and find it a valuable and provocative resource.

SOAF

SPARC Open Access Forum, a list operated by PETER SUBER and devoted to all aspects of open access. Valuable, probably vital if you're concerned with open access.

SOAN

SPARC Open Access News, edited and largely written by PETER SUBER. This free electronic newsletter includes incisive commentaries by Peter Suber and the links that he's identified in his Open Access weblog. Another valuable resource if you're interested in open access.

SPARC

The Scholarly Publishing and Academic Resources Coalition. "An alliance of universities, research libraries, and organizations built as a constructive response to market dysfunctions in the scholarly communication system." That's from the SPARC website (www.arl.org/sparc/), which includes full details on who's involved and what the organization has done. SPARC has served as an incubator for "competitive alternatives to current high-priced

commercial journals and digital aggregations," an advocate for "fundamental changes in the system and the culture of scholarly communication," and a source of educational campaigns "aimed at enhancing awareness of scholarly communication issues."

SPARC, which began in 1998, now has nearly 300 institutional members and 200 coalition members. It cooperated in founding SPARC Europe in 2001 and is affiliated with major library organizations around the world.

SPARC has had some success—but it's worth noting that "competitive alternatives" doesn't always mean free or cheap. Some SPARC-incubated journals have prices that would astonish the casual observer, but they're significantly cheaper than the commercial equivalents. SPARC has assumed sponsorship of the forum and newsletter begun by Peter Suber; see SOAF and SOAN.

Suber, Peter

The guru of open access. A former philosophy professor who now researches and writes on open access, operating the key weblog in the area as well as SOAF and SOAN (which see). One of those rare gurus who responds to tough questioning with careful, thoughtful comments instead of personal attacks or open disdain. He may or may not turn you into a believer, but at least you'll understand what's being said—and why.

swamping

What happens when one set of resources becomes effectively inaccessible because it's buried by much larger resources. Far more likely in digital environments than in the physical world: After all, if you own a Kia, you won't lose it in a parking lot because of all those Chevys and Hondas. But when you take two million bibliographic records (with 30-32 significant words each) and lump them into a common index with the text of 120,000 books (with an average of 70,000 words each), it becomes much more difficult to locate books with titles that aren't peculiarly distinctive. Similarly, if you search a 10,000-record ornithological database simultaneously with a 45 million record bibliographic database, with automatic merging of results, it may be hard to find records related to the birds, as many of the same words are likely to appear far more often in the 4500-times-larger database. Swamping can be prevented by intelligent systems design; it can usually be ameliorated by intelligent search strategies, but that's probably the wrong place to do it. (I don't write much about this here, but thinking about it is part of what I do for a living.) [4:1]

TCBR

Technology Consumer Bill of Rights, a proposal put forth by Sen. Ron Wyden (R-OR) and Rep. Chris Cox (R-CA). The bill “aims to ensure that consumers can use digital media as freely as analog media for home use,” according to a December 2002 *PC Magazine* note. In other words, it is or was one of many bills attempting to redress some of the imbalance in DMCA. As you would expect, Jack Valenti forthrightly said, “The spirit of these resolutions, disguised as pro-consumer, is actually anti-consumer.” In Jack Valenti’s world, that’s exactly right. Note that neither strong-copyright advocacy nor the desire to rebalance copyright follows party lines: Democrats and Republicans are on both sides of these issues.

top technology trend

I’m indebted to Cory Doctorow and the Boing Boing weblog for this formulation—but the key point is one I’ve been thinking about for years.

The last twenty years were about technology. The next twenty years are about policy. It’s about realizing that all the really hard problems—free expression, copyright, due process, social networking—may have technical dimensions, but they aren’t technical problems. The next twenty years are about using our technology to affirm, deny and rewrite our social contracts: all the grandiose visions of e-democracy, universal access to human knowledge and (God help us all) the Semantic Web, are dependent on changes in the law, in the policy, in the sticky, non-quantifiable elements of the world. We can’t solve them with technology: the best we can hope for is to use technology to enable the human interaction that will solve them.

On that note: I have a special request to the tool-makers of 2004: stop making tools that magnify and multiply awkward social situations (“A total stranger asserts that he is your friend: click here to tell a reassuring lie; click here to break his heart!”) (“Someone you don’t know very well has invited you to a party: click here to advertise whether or not you’ll be there!”) (“A ‘friend’ has exposed your location, down to the meter, on a map of people in his social network, using this keen new location-description protocol—on the same day that you announced that you were leaving town for a week!”). I don’t need more “tools” like that, thank you very much.

Cory Doctorow is certainly no Luddite; his weblog and his science fiction both make that clear. And, although I sometimes have fun with the concept (you do know that the Luddites were quite right in what they were saying?), I’m not a Luddite either. I make my living from technology. This zine is only feasible thanks to a whole complex of advanced technologies. I *love* what technology has done for entertainment—even as I wonder about what it has

done *to* entertainment. When it comes to libraries, there’s no getting around the significance of technology in where you are today and where you can be tomorrow.

But by now you should be figuring out that technology won’t solve the *real* problems that libraries face now and in the future. Maybe technological advances will provide some useful new tools, but Doctorow’s examples are vivid reminders that too many new tools come along with unintended consequences (and sometimes intentional consequences) that need to be coped with.

Libraries work effectively by integrating new technologies into an ongoing continuum of collection and services—and librarians work most effectively when they recognize that most users (and, for most public libraries, the most dedicated users) are less devoted to constant technological change than they are to the heart of libraries: Good people offering effective access to varied, worthwhile collections that center on books.

My top technology trend for 2004, when it comes to libraries and librarians, is the same as for 2003, 2002, and before: Toning down the technology in favor of the humanity.

TWAIN

The image-input protocols used by almost all scanner manufacturers. I’ve always heard that TWAIN stands for “Technology Without An Interesting Name” because the committee working on it was sick of amusingly-derived acronyms. Some current sources argue that there’s historical evidence that TWAIN took its name from the Rudyard Kipling poem “The Ballad of East and West”—you know, “and never the twain shall meet.” And like an idiot, I ran the same silly paragraph about the issue twice in two months last year, albeit in different running sections. None of this matters at all to scanner users, who now have this silly idea that scanners should just work (because they mostly do), but if some old Logitech employee (or someone else involved in the TWAIN negotiations) has unimpeachable evidence, I’d love to see it.

UCITA

Uniform Computer Information Transactions Act. This proposal, meant to be enacted by every state legislature, would (among other things) enshrine shrinkwrapped licenses as enforceable law at the state level. It was a bad proposal, designed in the apparent hope that it could be pushed through most state legislatures before there was strong lobbying against it.

That didn’t work. Maryland and Virginia passed UCITA; several other states responded by passing a

Uniform Electronic Transactions Act, a “bomb shelter” to prevent companies from taking advantage of UCITA’s passage in those two states. UCITA efforts have stalled almost completely, including a downgrading of the proposal by the National Conference of Commissioners on Uniform State Laws. It’s still a potential threat, but a separate effort to pass state “Super-DMCA laws”—laws that go even farther than DMCA in unbalancing copyright—seems more dangerous at this point.

UTF-8

The most common way to transmit Unicode®, the standard for display of multiple scripts. UTF-8 advantages ASCII, your traditional non-accented character set, by sending those codes as single-byte characters, while most other characters require two or more bytes. Why isn’t Unicode an entry here? Because I haven’t spent much time on it. RLG is a founding member of the Unicode Consortium. It’s important (and yes, Eureka displays the non-Roman scripts that are currently supported by MARC21, using UTF-8 to do so), but I’m not one of the “Unicode people” at RLG.

weblogs

Cites & Insights is not a weblog. That seems like a silly thing to say, but I continue to see it described that way from time to time. It’s not in reverse chronological order, it’s not a stream of items available directly on the web, it doesn’t use weblog software, and the intent is entirely different. Will I ever do a weblog (or a LISNews journal, which sure looks a lot like a weblog)? Possibly. Will *Cites & Insights* be transformed into a weblog? Absolutely not.

Does that mean I don’t regard weblogs as valuable? No. I don’t manufacture cars, but I consider them valuable too—and I don’t (knowingly) write fiction, but I certainly read it. I regard several weblogs as essential, several others as fascinating (there’s overlap), and quite a few others as intriguing in odd ways. Many people use weblogs for many worthwhile purposes—and who’s to define “worthwhile” except those writing and reading weblogs?

I could do without some of the “neoblogisms,” but that’s my problem. I don’t believe weblogs will or should replace traditional journalism, but that’s not the point. I do, in fact, believe that more libraries and librarians could make effective use of weblogs, although they might want to consider plans for that use *before* starting blogs.

Incidentally, the December 30, 2003 *PC Magazine* has a good writeup of weblog tools and wiki tools; it’s not hard to find more information on library-related weblogs than you could ever digest.

Z39

You may have heard of Z39.50 (a machine-to-machine search-and-retrieval standard for bibliographic data), Z39.2 (the standard that underlies MARC21), Z39.21 (ISBN), or any number of others. Z39 is the ANSI prefix assigned to NISO, the National Information Standards Organization, for use in library-related standards. NISO has a substantial website (which now includes PDF versions of NISO standards). It’s a little out of date, but Walt Crawford wrote *Technical Standards: An Introduction for Librarians* (second edition, G.K. Hall, 1991), still a good introduction to the field. (I was also the founding editor of *Information Standards Quarterly*, NISO’s quarterly newsletter. I have no current involvement with NISO; others at RLG are heavily involved in standards efforts through NISO and other organizations.)

zine

What I call *Cites & Insights*—not because it’s the ideal generic title but because I can’t think of a better one. I remember “fanzines,” which were and continue to be a force within science fiction: Small, frequently unpolished publications produced by fans to talk about the things they love. The most common usage for the more general “zines” these days seems to be for literary and special-interest publications that are intensely personal and frequently counter-cultural in nature and design. I’m using the more general sense: A noncommercial periodical primarily written and edited by one person, with a defined area of coverage, that isn’t really a newsletter. If anyone has a better name, I’d be delighted to hear it.

The Details

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