Cites & Insights

Crawford at Large

Libraries • Policy • Technology • Media

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Volume 5, Number 5: Spring 2005 ISSN 1534-0937 Walt Crawford

Bibs & Blather

A Little Spring Cleaning

This Spring issue—timed appropriately—appears for three reasons:

- Some "spring cleaning," adding new thematic sections and recognizing that old ones are defunct.
- Another of my periodic admonitions to get out of town, timed about when you should be making summer vacation plans (if you haven't already). (See PERSPECTIVE: GO AWAY—NOT NOW, BUT SOON!)
- Ancillary decisions, one ready to announce and discuss here. (See "HTML: An Internal Conversation" below.)

Thematic Changes

Cites & Insights thematic sections come and go. EBOOKS, ETEXT AND POD is gone as a separate section. CENSORWARE CHRONICLES is dormant if not defunct. I dropped CHEAP SHOTS & COMMENTARY almost two years ago. Looking at the mounds of material that I want to discuss and the essays I've been writing, the time seems right to add some new sections as well.

Copyright Currents

I'm dividing COPYRIGHT CURRENTS into four sections, based on the four-part view I suggest in *Library Technology Reports* (forthcoming):

- ©1: Length and breadth ("copyright universal and everlasting")
- ©2: The commons: Public domain, derivative works, initiatives such as Creative Commons
- ©3: Balancing rights: fair use, first sale, digital restrictions management, piracy…
- ©4: Locking down technology

My hope is to offer shorter sections more often, sometimes more than one section in an issue. If there's a set of issues that won't fit in those subcategories, COPYRIGHT CURRENTS remains available.

Net Media

I can't seem to get away from blogs, RSS, wikis, and the other tools and religions of internet culture. Think of this new section as an offshoot of TRENDS & QUICK TAKES on one hand and THE GOOD STUFF on the other. My first name for this section was "The Infosphere." But I've made fun of others for always wanting to use a neologism when there's already a perfectly good term. Since blogs, wikis, and these other things are basically just media that depend on the internet, I'll call them that: net media. In general, NET MEDIA sections will relate internet-based media to libraries—but don't count on it.

Inside This Issue

HTML: An Internal Conversation

Ever since I started *Cites & Insights*, there have been those who expressed desire for an HTML version. In most cases, it was a polite suggestion. In a few, it was a *demand*, once accompanied by profanity over my refusal to produce the publication the way this (presumably former) reader desired.

I believe that I had (and have) good reasons for doing *C&I* in PDF form—and that those reasons are ecologically sound. Here's what I've said in the *C&I* FAQ, which I suspect most of you haven't read:

Why are issues PDF rather than HTML?

- Issues are too long to read comfortably at the computer…typically 14 to 20 pages, two columns each, with each column wide enough for a screen.
- The two-column print format yields a reasonably compact print version. A screen-optimized HTML version would be much longer. (A reasonably-formatted HTML version of a 20-page issue would use at least 30 print pages.)
- I care about typography and the PDF package retains the typography of the original.

Don't you dislike PDF as a single-owner proprietary format?

Yes. But I really care about typography.

Acrobat Distller lets me use the typefaces I like and know that you'll see the same typefaces on your copy—and I didn't have to switch from TrueType to PostScript.

It's a compromise between my open-format principles and my desire to distribute this newsletter looking the way I want it to look. Life is full of compromises.

Four years later…

When I prepared those notes (which have been refined over the years), *C&I* used Arrus BT and Friz Quadrata BT, two superb Bitstream typefaces available to anyone using one of several Corel products such as Ventura Publisher or Corel Draw. I knew most people would *not* have those typefaces installed. I did not know of any generally installed text face that I considered nearly as readable as Arrus; I still don't.

I suggested that a 20-page issue (with side margins) would use at least 30 print pages. I was conservative: An HTML version of a 20-page issue *without* such margins runs 38 to 42 pages.

This year, I upgraded the typography: Body type is now Berkeley Book (Berkeley for boldface). It's not quite as good as Arrus for on-screen reading, but it's even more readable and handsome in print. It's also smaller, so I've increased the point sizes in *C&I* to compensate.

Meanwhile, I thought about the essays in *C&I*, their potential reach, and whether strict adherence to PDF was an obstacle to that potential.

The soft test

A couple of weeks after producing the February issue (5:3), I generated HTML versions of each story (with a standard header and footer). I uploaded those versions and provided links from the "all contents" version of the 5:3 table of contents, but not the contents on the home page. I discussed the postings and level of response in *C&I* 5:4 (PERSPECTIVE: THE DANGLING CONVERSATION). Briefly, between those versions and a second set of HTML files generated with *C&I* 5:4, I received comments from at least 36 people. Here's how I summarize those comments:

- Eight people preferred PDF, didn't see much use for HTML (particularly if the internal links aren't live), and basically said "it's not broke, don't fix it."
- Fourteen people offered split comments—they read and like the PDF, but they can see the virtues of HTML as well, particularly for individual-article inbound links. A couple of them couldn't see much point to HTML if the internal links weren't live.
- Twelve people favored HTML. One of them said that I "need to do" HTML. Nobody was abusive. Several seemed to assume that HTML versions would automatically have live links and that I'd provide a nice overall navigation structure, essentially doing a full HTML version of *C&I*.
- The other two were discussing tools and methods for me to do good HTML—or, in one case, an interesting suggestion for solving a different problem than I'm trying to address.

The original set of HTML files for 5:3 (the files with .HTML extensions) had truly atrocious HTML markup—markup so bad that the text face varied back and forth between my face of choice (Book Antiqua/Palatino) and the user's default text, sometimes within the same paragraph. That can be hard to spot. I finally set my default text to Engraver, a "currency" typeface that can't be mistaken for any normal text face. I was horrified by the results. The second set of 5:3 files (with .HTM extensions) and the selected files for 5:4 (also with .HTM extensions) used a lower-overhead method that produces much cleaner HTML.

Methodology

Let's talk about those generation methods a little—understanding that any HTML equivalents *must* be quick, easy, no-learning-curve extensions of the Word-to-PDF production process. I do *Cites & Insights* on my own time, as with all other writing. That time typically amounts to an hour a day, if there aren't

other demands, plus a few hours on some weekends. Each hour spent messing around with the publication process takes a day away from reading, writing, and relaxing. I'm protective of those slots, particularly since I like to "waste" some of them on non-computer activities. Up to now, it's taken two to four hours to turn a set of articles into an issue (copyfitting and final editing), half an hour to an hour to modify the *C&I* pages and upload the issue, and another half-hour to an hour to update the running volume index and update the raw material files to eliminate what's been published. I might be willing to add another half hour to the publication process to produce HTML files if they seem useful rather than distractions. I would *not* be willing to add another two hours—or to adopt a process with even 5 hours' learning curve.

The bundled tool I use to maintain my simple web pages, Symantec Visual Page, is *truly* minimal: The FTP client works just fine, as does the HTML editor, but it doesn't import anything but the text from word processing files. It was inadequate for this job.

Being cheap, I tried something else: Web Page Creator from Cosmi Corporation, part of the $5-$10 Swift Jewel series carried by Office Depot. Web Page Creator does read Word documents and generate HTML versions. The reason it reads Word documents fairly well is apparent from the actual install process. Namely, "Web Page Creator" is the OpenOffice HTML editor—what you get on the CD is OpenOffice 1.0.2 in its entirety. One "selling" point for OpenOffice is Microsoft Office file compatibility. Indeed, OpenWriter and the HTML editor both read Word files nicely, including template-based styles. So what I got for $5 was OpenOffice.

Turns out, as those early .HTML versions show, the HTML editor does truly crappy HTML when fed Word template-based documents. It insists on paragraph-by-paragraph typeface and point size assignments (there is a CSS section, but it's commented out). It loses track of the typeface, so you lose typeface integrity. Given its druthers, it assigns text to some oddball typeface, Thorndale, which I've never heard of. The typeface isn't installed by the OpenOffice install process. That's a first for me: A program that defaults to a nonexistent typeface.

I still have OpenOffice on my PC, but I'm not sure why. The HTML editor may be fine when working from scratch—but then, so is Symantec Visual Page. I needed something a lot more automatic.

I know how much people have reviled Word's Web output—and I know that the first time I tried it, it was ghastly: Enormous, complicated, uneditable.

There's another option in Word XP (Word 2002) and, presumably, newer versions: "Web page, filtered." I took *C&I* 5:4, switched to the "web template" (which switches in Book Antiqua instead of the two print typefaces and eliminates a few niceties), replaced the first-page banner with a "Selection from…" HTML header, and generated selected sections by the simple process of loading the whole document, eliminating all but the one story, and Saving as… repeatedly. Total time: less than 15 minutes for the whole set of stories—*much* faster than the OpenOffice process.

That's what you're seeing in the current .HTM versions: Word "filtered web" output with *no* modifications after the fact. It's not great HTML, but it's not terrible. It uses CSS, albeit embedded in each file rather than as a separate file. The typography is intact and consistent. Macs, most of which don't have Book Antiqua, seem to degrade nicely to the default serif typeface; I can live with that. By modifying the "Properties" tab before saving each article, I get the title I want and some keywords as well—again, not great metadata, but good enough.

Talking to myself

Should I do this or not? Here's how the internal discussion went… "Geez, Walt," I say to myself, "that's *really* not what I had in mind. It's clear that printing out HTML will use twice as much paper as the PDF form—maybe more. It's clear that a printed version that 'only' takes twice as much paper will be a lot less readable than the PDF, since the print columns are too wide for optimal readability. This is a bad idea."

> Yeah, but the HTML versions will allow inbound links to specific articles, encouraging readership outside the community that has any interest in the whole thing. That's good, if you care about what you write—it spreads the messages more broadly. And the HTML version doesn't look that bad, even if it isn't as pretty as the PDF.

"You've worked hard to make the PDF form attractive, readable, well-organized. What if people abandon the PDF for less-readable, less well organized, paper-wasting HTML?"

> I don't think that will happen, based on the comments: 22 of 34 will continue with PDF, and I assume that's true of most who didn't respond. Besides, if people really *want* to read on screen, the HTML is much better.

"That's another problem. Most *C&I* essays are too long to be read on screen, and I believe there's good evidence that some people who *do* read them on screen don't fully comprehend what they're reading."

> Who died and made you the arbiter of reading styles? If people want to read on screen, you can't stop them—and why should you? Do the damn HTML; you've come up with an easy method that's not ugly.

"Well, yes, but there's another problem. My sense is that online text tends toward short and snappy: Brief thoughts expressed briefly. If I see I'm getting lots of HTML readership, my natural tendency would be to start making paragraphs shorter, sentences simpler, thoughts cruder. I'll be inclined to dumb it down and substitute black-and-white thinking for the gray that now dominates *C&I*. I don't want that to happen."

> Bull. There's no reason to believe you'll lose PDF readership. Your prose style ain't all that hot anyway, but nobody's going to force you to dumb it down just because some people read it on the screen. You've seen enough blogs and websites with multi-thousand-word essays. As long as HTML is an offshoot, this particular fear is just dumb.

"Maybe that's true. And it's probably true that I really shouldn't care as much *how* people read this stuff, as long as they *do* read it. Just because I don't want to read more than 500 words on the screen (but frequently do), just because even studies of the 'digital generation' seem to show a similar revulsion among most of them for extended on-screen reading and understanding…well, so what?"

Now that I'm through talking to myself…

I'm adding selective HTML to *Cites & Insights*. The four articles from *C&I* 5:4 will stay there indefinitely. I've added cleaner .HTM articles for 5:3 and new selective .HTM for 5:1 and 5:2. By the time this issue appears, I'll have added HTML for the last two issues of *C&I* 4, and I intend to go back through that entire volume. I may or may not do volumes 1 through 3. If I do, I'll announce them at the C&I Updates blog, on my LISNews journal, and elsewhere as appropriate. You'll see links in the table of contents for some or all of this issue's articles and for issues in the future. Those files will stay mounted indefinitely. ("Permanent" doesn't fit web content very well…)

When I say "selective HTML," what do I mean?

- Any article that takes up more than about 40% of an issue will *not* have an HTML version: That's a pure waste of paper.
- Most BIBS & BLATHER, FOLLOWING UP, FEEDBACK, and other "internal" sections won't have HTML versions. There may be exceptions.
- If I believe an article makes sense only or primarily within the context of a complete issue, I won't do an HTML version.
- If an article appears in HTML, the *whole* article will appear. Selectivity will be at the level indicated by each issue's table of contents.

Don't expect live links within the HTML. Don't expect snazzy title-based URLs for the HTML files. The URL pattern will be "vNiMX.htm," where "N" is the volume number, "M" is the issue number, and "X" is a lower-case letter tagging the story, starting with "a." Thus, the first HTML piece from this issue will be at cites.boisestate.edu/v5i5a.htm

Feel free to link directly to articles. All articles link to the issue. All use the same Creative Commons "BY-NC" license as the issues. They are, to be sure, easier to quote from and forward to others.

I should add that YBP made it *very* clear that there would be no pressure of any sort from them for me to add HTML or make any other format changes.

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Broadcast Flag and Grokster

Near the end of February, the U.S. Court of Appeals for the District of Columbia Circuit heard oral arguments in *ALA v FCC*, a suit that claims the FCC had no business adopting the broadcast flag. It may be some time before a decision appears. Meanwhile, let's look at some of the briefs and related discussions.

If you think about it, the broadcast flag rulemaking is rather extraordinary. It's not about broadcast quality, interference, channel allocation, or any area you'd expect the FCC to regulate. Instead, it's about what happens to digital broadcast material *after* it's received—an area that would seem well outside FCC's jurisdiction. Much as the FCC likes to claim that it's only a regulation on broadcast receivers, that's nonsense: For the broadcast flag to work at all, it must (and does) apply to *any* device that can handle (receive, copy, send) data that originated as digital broadcasting, no matter how far removed from the receiver. Among other things, that includes every personal computer capable of handling digital-broadcast

bandwidth—which in practical terms means almost every personal computer.

Starting Points

Susan Crawford (no relation) posted "Language makes policy" at her blog on September 20, 2004 (scrawford.blogware.com/blog, September 2004 archives). It's a solid essay on the point that "policy is driven by phrases," and begins with this paragraph—a great way to start the discussion:

> **The Broadcast Flag**. The broadcast flag is beautifully and efficiently named, because it is neither about broadcast nor limited to the waving of a patriotic "flag." Indeed, those who learn about the broadcast flag scheme quickly forget that it is focused on protecting digital television broadcasts and speak generally about the protection of digital content. And the "flag" is, in a sense, the least important part of the entire scheme. All it does is signal "the following content should be protected." The heavy lifting—the encryption and locking-down of the content—is done by the FCC mandate and by the machines affected by the mandate.

Another September 2004 item shows just how effective groups are at using language to their own purpose—although in this case it was the National Association of Broadcasters, NAB, which doesn't seem to be taking a direct stand on the broadcast flag.

According to the September 23 *Wired News* story by Michael Grebb, the NAB succeeded in gutting a bill from John McCain intended to force the digital transition. The bill, another cute name that forms Save Lives as an acronym, would have required broadcasters to give back their analog TV spectrum by January 1, 2009; some of it would be turned over to emergency workers, with the rest auctioned off to companies planning wireless broadband. That revenue from recovered TV spectrum is the sales pitch behind all of FCC's moves to force the digital transition, which in turn is their primary excuse for the broadcast flag. Remember: TV broadcasters didn't pay for the analog spectrum they use now, and they were *also* given the new spectrum for digital channels—given, not sold. Most observers don't believe broadcasters have any intention of yielding the (free) spectrum they own—er, control.

McCain pushed the issue by setting a deadline and providing a $1 billion subsidy so that people dependent on broadcast reception could get set-top boxes to go digital.

When Fritz Hollings and Conrad Burns got their hands on the bill, they added a little amendment: the broadcasters wouldn't have to give up the analog spectrum in a particular market if the FCC concluded that would create a "consumer disruption"—and if the FCC swallowed the arguments for the broadcast flag, it would certainly swallow NAB's claims of disruption four years from now. McCain wasn't happy; neither were other supporters. Hollings, ever the handmaiden of Big Media, had an easy response: "What you call a loophole we call flexibility." In practice, McCain claims the new loophole is even wider than the current loophole (analog spectrum doesn't have to be returned until 85% of American households are able to receive broadcast digital signals—a goal that may take many years, maybe a decade or longer).

The Court Challenge

An October 6, 2004 press release from Electronic Frontier Foundation announces it: "EFF, public interest groups challenge legality of the broadcast flag." The release names EFF, Public Knowledge and ALA, and goes on to note that the brief in the case argues, "[T]he FCC has no authority to regulate digital TV sets and other digital devices unless specifically instructed to do so by Congress. While the FCC does have jurisdiction over TV transmissions, transmissions are not at issue here." (Other plaintiffs: ARL, AALL, Medical Library Association, SLA, Consumer Federation of America, and Consumers Union.)

The brief

The opening brief in *ALA v FCC* was filed October 4, 2004; it's readily available from EFF's site (www.eff.org) in the broadcast flag archive, as are other briefs mentioned below. Why ALA? Presumably alphabetical order.

The brief raises three questions:

> 1. Whether the FCC exceeded its statutory authority by requiring Broadcast Flag technology to be included in digital television ("DTV") receivers and other consumer electronic devices, despite the fact that this technology operates entirely outside interstate radio communications and Congress has specifically withheld authority from the FCC to control television receiver designs.
>
> 2. Whether the FCC acted outside its statutory authority by attempting to protect copyright holders through a mandate similar to that previously rejected by Congress in the Digital Millennium Copyright Act

("DMCA"), and by usurping the prerogative of Congress to create and define the scope of copyright.

3. Whether the FCC arbitrarily and capriciously promulgated the Broadcast Flag rule in the absence of substantial evidence that it is needed, and where the technology will not resolve the problem it is intended to address.

The brief answers all three questions positively. The first may boil down to whether the FCC is free to do whatever Congress explicitly forbids—an interesting claim for any unelected regulatory body—or whether it can only act within defined statutory grants. The brief asserts the latter. But that's not all:

> The FCC...mandated the technology without any proof that DTV programs have ever been placed on the Internet, and in the face of *undisputed evidence* that the Broadcast Flag regime will be entirely ineffective at stopping any pirate armed with an existing ("legacy") DTV tuner that does not recognize the flag. [Emphasis added.]

In other words, it's an illegitimate seizure of power to solve a problem that hasn't been proved to exist with a solution that is *admitted* not to work.

The brief goes on to state that the flag is "a mechanism for expanding the copyright protection" of Big Media, goes into some detail on the effects on "downstream devices" such as PCs—all of which must recognize and obey the flag if it is to be effective—and notes just how wide the sweep of the flag really is:

> It creates a whole new regime of technical and copyright-related regulation in one stroke: design regulation of electronic consumer equipment, including PCs; restrictions on use of the Internet; licensing requirements for downstream devices; and rules that will impede consumers from engaging in lawful uses of broadcast material.

It's also expensive: Inherently, the flag will increase the cost of all flag-compliant devices. It makes existing devices less valuable (current DVD players *cannot* play future broadcasts recorded on a flag-compliant "DVD" recorder: that's inherent in the downstream-protection requirement). It negates a variety of fair uses by making them impossible, including the reuse of public domain material contained within a flagged broadcast. It is indeed part of "a broader entertainment industry effort to expand copyright protection by controlling technology design"—an effort that's been well documented (here and elsewhere).

The brief recounts the backroom dealing that resulted in the broadcast flag proposal: The Broadcast Protection Discussion Group, formed by an interindustry working group, found its efforts hijacked by "14-plus hours of *exclusive* negotiations among the MPAA and the 5C Companies," the companies actively developing flag technologies.

Even Hollywood Howard Berman objected to the FCC's rulemaking, although in a statement that suggests he was afraid the FCC might somehow "limit the exclusive rights of copyright owners." Thousands of respondents objected to the FCC's Notice of Proposed Rulemaking, many of them pointing out that the FCC doesn't have the power to issue such a rule.

The whole case for the broadcast flag is Big Media's assertion that without it, high-quality programming will be withheld from digital TV. But, as the brief notes, "None of the movie studios, television producers, or networks came forward with any proof that they had withheld one single program from digital broadcasting because of a lack of protection, or of a single instance of Internet redistribution of HDTV programming." Not for lack of digital programming: there's a *lot* of HDTV on the air, and "each of the major networks recognized that substantial amounts of digital broadcast content are already available absent any protection whatsoever."

Viacom, owner of CBS, made the big threat in December 2002: "If a broadcast flag is not implemented and enforced by Summer 2003, Viacom's CBS Television Network will not provide *any* programming in high definition for the 2003-2004 television season." That's particularly interesting, since CBS is the *leader* in HD programming: nearly all of its primetime entertainment series were broadcast in HD in 2003-2004. It was, in other words, pure bluff—and yet, the FCC acts as though the bluff was a simple statement of fact.

The brief's section on *how* the FCC claimed authority for the broadcast flag is fascinating, but really requires direct reading. Apparently, as long as the FCC finds something "necessary" to "lead the nation into a new era of free, over-the-air digital broadcasting," it can do anything it damn well pleases…unless Congress has explicitly ruled out each specific thing the FCC's thinking of doing. So the fact that Congress *did* explicitly say that FCC could say that TVs had to receive all channels but *could not* specify how well those channels were received has no bearing: That was only one little limitation on FCC's apparently boundless authority.

Is the flag needed? Apparently, FCC doesn't care. Maybe it's not feasible to retransmit a high-def signal over the internet now (it's not even realistic to retransmit a standard-def signal without heavy compression), but it *might be* at some point in the future. So what if commenters noted that the flag really wouldn't protect digital content? The FCC concluded it was necessary as a "speed bump" to decrease the number of individuals who can share broadcast material—in other words, something to punish honest people without interfering with crooks.

The FCC claims the broadcast flag does not detract from fair use and acceptable copying—but it's already approved a handful of devices using the flag, and "many of the technologies approved [interfere with consumers' ability to copy flagged programs for personal use]."

The FCC acted outside its jurisdiction on behalf of people who should *have no standing* before the FCC (that is, the MPAA). It contends an astonishing boundless jurisdiction over anything that could ever be related to broadcast or receipt of programming, no matter how remotely. It flouts multiple explicit limits. It's attempting to regulate activities wholly outside of interstate communication (and thus outside Federal rule); and it's trespassing into copyright law.

Here's a great analogy in the detailed arguments: "The Broadcast Flag resembles an assertion of FCC jurisdiction over an entire automobile simply because the car contains a satellite radio receiver." Read the whole paragraph; it's not a far-fetched analogy.

The response

I've gone through the 45-page FCC response (also available from the EFF site). All I see is a series of "Did not!" responses. The brief includes demonstrably false statements, *assumes* that the bluff issued by Viacom and others is legitimate and the basis for dramatically overstepping the FCC's bounds, and nonsensically claims that the broadcast flag "protect[s] the integrity of broadcast digital transmissions" although it has *nothing* to do with broadcast quality or integrity. The brief is as breathtaking in its assertion of boundless FCC power as it is dulling in its lack of legitimate evidence or serious counter-argument.

Susan Crawford commented on the brief in a November 11, 2004 post, "Does the White House know?" She calls the brief "remarkable."

> The FCC's brief…is breathtaking. FCC's position is that its Act gives it regulatory power over *all instrumentalities, facilities, and apparatus* "associated with the overall circuit of messages sent and received" via *all interstate radio and wire communication.* That's quite a claim.
>
> FCC believes it has simply been restraining itself up until now. Since 1934…FCC has had power over all equipment used in connection with radio and wire transmissions. When the need arises, it can exercise its authority—including its authority over PCs, PVRs, and any new gizmo that has something to do with a communication of some sort.
>
> …The thing is, this rule doesn't merely affect TV receiving equipment. It affects everything that RECEIVES digital files from TV receiving equipment as well—every device inside any home network. It affects the open-platform PC. It's a sweeping rule. And now FCC's jurisdiction to enact this rule is being argued in sweeping terms.

And here's….the RIAA

In the midst of all this, a November 15 Boston.com piece by Hiawatha Bray offers an interesting note: The RIAA doesn't believe you have any right whatsoever to record an Internet broadcast for alter use—the Betamax case gave you the right to time-shift but not to *save* any recordings. So the RIAA wants FCC to add a radio broadcast flag to the new in-band digital radio transmissions, a "piracy cop that would prevent your copying the songs broadcast over the air." Maybe you could record a stream for later use, but you couldn't split it into songs—and once played, it would autodelete. That requires considerable interference with the architecture of a PC. "In essence, the music companies want to control the design of all future home computers. It's been their fondest hope for years…"

The reply brief

The reply brief was issued on December 2, 2004. The FCC had noted that "fair use" could still be achieved through the "analog hole" (albeit at lower quality), and the reply notes that such analog copying "may soon disappear after the DTV transition" and that, if the FCC has the power to prohibit some copying of broadcast programs, "it follows that it also has the power to prohibit all copying…"

The rest of the brief details the extent to which FCC argues around the many restrictions that Congress has placed on its authority, the ludicrousness of some FCC arguments (e.g., that Congress explicitly provided authority as an "emphasis" that the FCC already had that authority, despite clear legislative lan-

guage to the contrary), and the astonishing breadth of new claims for FCC authority.

The hearing

There's an old legal joke: When the facts are against you, argue the law; when the law is against you, argue the facts. For proceedings against government agencies, there's a third clause: When the facts and law are *both* against you, argue standing.

That's what Judge David Sentelle did. According to one observer ("Luminousvoid.net") he used 10 minutes of the plaintiff's 20-minute argument period claiming that the ALA and other plaintiffs could not demonstrate harm from the broadcast flag that would give them standing.

The other two judges were more sympathetic to the plaintiffs…as was Sentelle when it came to the facts. Judge Harry Edwards said, "You're out there in the whole world, regulating. Are washing machines next?" Sentelle echoed, "You can't regulate washing machines. You can't rule the world." In fact, ALA *did* show specific damage: The broadcast flag interferes with fair use for distance learning and criticism, as well as damaging the public domain. Judge Edwards wondered where the line of FCC jurisdiction should be drawn. Plaintiffs' response: At receipt—but not including post-receipt handling.

From what I've seen of reporting, it sounds as though Sentelle was looking for an excuse to deny the suit. It will be interesting to see the outcome—and if you *ever* plan to record high-definition TV, I suggest you buy a "noncompliant" (and still legal) PC tuner card *now*, before July, just in case the court agrees with FCC's overreaching.

This just in…

On March 15, 2005, the court issued an opinion asking for further facts about petitioner's (ALA etc.) standing—thanks largely to MPAA "intervening" and challenging their standing. Actually, the MPAA intervention argues that, because ALA et al did not conclusively demonstrate their standing prior to the oral arguments, the case must be summarily dismissed—an argument that two of the three judges call a "'gotcha' trap," particularly given that both the court and the petitioners regarded standing as self-evident. (Need I say who the dissenting judge is? Go back four paragraphs…) The court wants ALA et al to amplify the extent to which the broadcast flag will damage library ability to make legitimate uses of digital content—and gives them some specific ways to do so. (For example, is Vanderbilt's Television News Archive a member of one of the petitioning association? Are any "accredited nonprofit educational institutions" members of ARL or ALA—and, if so, how will the broadcast flag hinder distance learning?)

Susan Crawford (who blogged about this immediately) considers this good news: "I think this court wants to find standing. Once this legal threshold is in place, the court can walk right in and declare that the FCC had no jurisdiction to adopt the flag rule. And we'll be back at Congress." One can only hope—and also hope that, as Crawford urges, Congress "should act to lead the world in self restraint… Don't let one industry (content, law enforcement, or telecom) control another (high-tech innovation) without a strong social consensus to do so."

MGM v Grokster

I discussed the Ninth Circuit Court of Appeals ruling in this case last October (*C&I* 4:12, pp. 6-8). In an eloquent ruling, Judge Sidney R. Thomas held that Grokster and similar P2P programs that do *not* use central indexes could not be held liable for contributory copyright infringement. That decision also pointedly noted the Betamax doctrine and the related concept that you can't extend copyright law to prop up an existing business model—at least not without Congressional action. Grokster and its peers have significant noninfringing uses, and the makers of the software have neither direct knowledge of infringing uses nor control over such uses.

Naturally, MGM and the other plaintiffs appealed, and the Supreme Court agreed to hear the case. Briefs have been flying thick and fast. I won't even attempt to cover them all (I won't attempt to *read* them all—this isn't what I do for a living, and there are dozens of them). A few notes may be in order.

EFF's January 25, 2005 "Deep links" post says, "[F]rom the beginning, this case has been about the entertainment industry's effort to re-fight its war against the Betamax VCR… According to the entertainment industries, the Betamax defense 'should not apply when the primary or principal use of a product or service is infringing.'" The post goes on to note why this is such a dangerous shift from the Betamax "mere capability of non-infringing uses" test, including the point that primary uses for new technologies change over time. For example, during the first days of Betamax—when there were no prerecorded video-

cassettes—VCRs were almost certainly used *more* frequently to make copied of movies that would be traded informally than they were after you could get cheap, higher-quality prerecorded cassettes.

Edward Felten agrees that the biggest issue is whether the Supreme Court will adjust or clarify the Betamax doctrine—and points out the failure of the "balance of interests" language in movie studio briefs. They consider only the interests of copyright owners and Grokster—"But that's not quite the balance that Betamax is talking about." The significant balance is the interest of *everybody* who benefits from a product's existence. When Felten read a bunch of briefs filed in one group, he found three that understood this point—and the three came to different conclusions.

In a later post at Felten's *Freedom to tinker*, he notes an interesting prediction on the likely outcome, from David Post at the Volokh Conspiracy. Post predicts that the Supreme Court will try to please both sides by overturning the lower court's decision while upholding the Betamax doctrine. How can it do that? According to Post, "There's evidence in [the case's records] that Grokster and the other defendants actively encouraged and induced its customers to infringe copyrights, and that inducement of this kind is not protected by the Sony safe harbor." Such a split decision could, Felten says, muddy the waters even worse.

Ann Wilson, Nancy Wilson, Janis Ian, and others

This *amici curiæ* brief from a large handful of recording artists spends 10 pages discussing the careers of the people involved, to demonstrate that they're a "diverse group of musicians that have extensive knowledge and experience in the music industry." (Either that should be a group that *has* or it should be musicians *who* have, but never mind: Why should lawyers' grammar be any better than mine?)

These musicians tout the virtues of P2P file sharing to *promote* musical works and affirm that Grokster and its peers have many non-infringing uses—and that it could yield "a significantly more prevalent alternative distribution and promotion system" that would "without question" further the professed aims of copyright.

They quote a Pew survey of 2,755 musicians. 35% of those surveyed thought file-sharing services could help promote and distribute an artist's work; 23% believed such services were bad for artists; 35% proved themselves to have artistic tendencies by agreeing with both statements. As regards free downloading of music, 37% said it hadn't affected their careers, 35% said it's helped; and only 5% said it has exclusively hurt. Results were similar for artists in other media.

There's more to the brief, particularly noting that it can help older artists who have been abandoned by the major labels—and new artists who don't get signed by major labels. After citing anecdotes involving these artists, the brief notes "These are just anecdotes. But they stand in stark contrast to the industry's claims of impending doom."

I might not have read this brief had it not been for a March 1, 2005 press release from The Recording Artists' Coalition. That release talks about artists being "seduced into believing" that unauthorized P2P systems benefit society and artists' careers, says they "naïvely accepted the dishonest argument" that artists *against* Grokster are against P2P: "Nothing could be further from the truth." Right. The release says the artists want P2P to offer "uninhibited and direct" distribution—but only while "respecting artists' demands for fair remuneration." How do you get "uninhibited" distribution with absolute assurance of "fair remuneration"? That question isn't answered, for what I regard as obvious reasons. A statement from RAC's national director comes to a simple conclusion as to the law—an interesting one given what the courts have said so far: "*Illegal* file-sharing systems like Grokster…" (emphasis added).

Grokster

Grokster's own brief argues cogently against every claim made by the plaintiffs, but I won't go into detail. The brief claims that Grokster is basically just a file transfer capability married to "a mechanism for efficiently finding other computer users who have files a user is seeking" and goes on to note, "[S]oftware to search for information on line…is itself hardly new."

There are some interesting sidenotes—such as a claim from an "expert" on the other side that, if Grokster disappeared, the software would "degrade over time." You know, bits don't actually rot: You may outgrow software, but software doesn't deteriorate (assuming that the disk it's stored on doesn't fail).

The brief notes that a continued assertion—that 90% of Grokster usage is infringement—is twice removed from the only actual claim: an *allegation* that over 90% of files exchanged *involve copyrighted material*, which is a very different statement. If you copy this issue of *Cites & Insights* or this essay as an HTML

separate—which you must do, twice, in order to read it—you're copying a file that involves copyrighted material. You will have done nothing illegal. Put it on a P2P system, and you still haven't done anything illegal (as long as copies aren't sold for commercial gain), given the explicit Creative Commons license. Almost every file you could possibly exchange (except for copies of *very* old books and government-produced material) "involves copyrighted material," because even a blog post is covered by copyright as soon as it's recorded in fixed form.

The brief mentions some successful businesses that use P2P file-sharing as a direct counter to claims that Betamax shouldn't cover Grokster.

Internet law faculty, conservatives and others

A number of faculty at Berkman Center for Internet & Society at Harvard Law School filed a 28-page *amici curiæ* brief stressing the value of the Betamax doctrine (called "the *Sony* standard" in this brief). It "has proven to be an effective means of balancing the interests of copyright owners with the equally important need to preserve incentives for technological innovation." The brief offers examples of that innovation (PVRs, CD burners, the iPod) and how they might have been throttled without the Betamax doctrine.

It's a strong, detailed brief, forcefully rebutting various claims such as one that you shouldn't allow a potentially-infringing technology if there are other ways to achieve similar ends. The brief also asserts that new business models can and should emerge, just as has happened throughout history: Studios *made* money because of VCRs after asserting that VCRs would ruin them, for example. Home video is now a *much* larger revenue stream than theater spending, although theater spending continues to grow slowly. After going through some of the numbers and claims regarding the effects of infringing downloading (and fee-based downloading), the professors conclude, "In sum, the sky is not yet falling." They argue that claims of special entitlement by the entertainment industries are bogus in the Grokster case.

A March 3, 2005 story at Music Industry News Network notes a brief filed by the Consumer Electronics Association, Computer and Communications Industry Association, and Home Recording Rights Coalition. This brief also argues that the Betamax doctrine must not be overturned or modified.

Here's an interesting one: a 16-page brief from the American Conservative Union and the National Taxpayers Union. "Well, of course those folks will argue for the tightest possible copyright," I can imagine some of you thinking. **Not so**: In this case, both groups hold to *Constitutional* conservatism—and understand that extreme copyright conflicts with innovation and entrepreneurship. The brief talks about "expanding the scope of the statutory copyright monopoly" and notes these groups' support for "capitalism, entrepreneurship, and innovation."

> In an information-technology-driven economy, we can ill-afford to chill innovation by placing unnecessary and unworkable legal constraints on inventors and technologists. Adoption of Petitioners' proposed radical departure from the *Sony* doctrine would stifle innovation, increase costs to consumers and entrepreneurs, and cause significant and unnecessary harm to the economy and the public.

The brief goes back 120 years to discuss the Supreme Court's consistent refusal to allow copyright holders to extend their rights so as to control technology. Later, they bring in the public interest issue apparently ignored in some other briefs.

A March 7, 2005 item in *The Industry Standard* notes that "more than 20" briefs were filed by technology trade groups, consumer advocates and lawyers. As always, Big Media has a simple stance, as evidenced by the statement from Dan Glickman of MPAA: The lower court's ruling "rewards and promotes illegal behavior, that is the theft of intellectual property… The business model created by Grokster does not support property rights—it promotes stealing." And so it goes.

Following Up

A potpourri this month of items that extend previous coverage and don't deserve their own essays.

The Dangling Conversation

I'm pleased that no flamewar erupted over this PERSPECTIVE (*C&I* 5:4). Two postings in an ongoing Web4Lib thread (or set of threads) offered perceptive comments that I wanted to add.

David Mattison noted "a lot of confusion over what RSS is and does" and went on (in part): "Unlike Usenet…and unlike e-mail, RSS by itself is non-interactive and a one-way street. You can't…reply to a[n] RSS feed item. RSS is essentially a distribution or publishing medium." He goes on to note that the

blogging community has turned RSS into "an indirect two-way communications medium"—but that any actual interaction happens when you click through to the original blog and its commenting system (if it has one). He also notes that RSS is no longer free of the hassles of other web media: "Although RSS is free from spam, there are RSS feeds that include paid advertising, so it's not quite the ideal ad-free medium it's sometimes made out to be." Indeed, the only "A list" weblog I read via feed now carries *lots* of text ads, and I'm about ready to drop the feed. (Somehow, having the text ads embedded right in the stream of posts is much more annoying than sidebar ads.) He also noted, "Switching to RSS won't help you get a handle on the information flood. It's all a matter of personal choice…" I would suggest that, used wisely, RSS *can* help—but only a little.

David King made similar points in a slightly earlier post (which Mattison may or may not have seen when he wrote his post). He calls RSS "a new way to read an old thing" and notes, "Keeping up a conversation is actually slightly more difficult with RSS [than with Usenet]—you either have to make comments in the comments area of the original blog post (not as many people do this, and you don't always get a good conversation going using this method), or you have to make comments using your *own* blog (so obviously, you have to have one to comment on)." Both of them reminded me that, even though I've used email for about as long as it's existed and have been writing on a PC since the days of CP/M, I've never used Usenet.

I note that in some list discussions a few people seem *adamant* that the proper name of an e-mail list is Listserv®—they refuse to use "list" or use it in quotes. That's a little odd: It's like insisting that every database is an Ebsco or a Firstsearch or that every portable music device is a Walkman or an iPod. As the makers of Kleenex brand facial tissues and Band-aid brand adhesive bandages will tell you—and as L-Soft (makers of Listserv email list software) asserts—brand names are important. Librarians have enough legitimate problems with copyright; I don't think the field should be disregarding trademarks, particularly in cases where the owners are sensitive to generic use. (Hmm. How do you MLS-holders feel about anyone who works in a library being called a librarian?) Anyway: Call them lists or email lists; that's what they are, and many of the ones you see are *not* powered by L-Soft's Listserv software.

A walking paper cluster

Never mind the third subsection of that LIBRARY STUFF cluster (*C&I* 5:3). In the first subsection, I applauded Aaron Schmidt's thinking about how public libraries can and should introduce new technologies to their communities and noted that he'd said "More on this later." In a February 7 posting, "Leading communities through info technologies," he picked up on that reminder and posted two questions:

> 1. What would it mean for a library to lead their community through new info technologies?
>
> 2. Why should libraries get involved with leading their community through new information technologies?

He goes on to say that a library can't help the community by simply buying new technology, or by simply buying and using it. "The answer to question one above is **education**." Libraries should demonstrate expertise by writing articles and offering classes, maybe even offering consulting sessions to other groups. His answer to the second question is intriguing and fairly convincing, for libraries with a little human capital to spare:

> 2. Part of your library's mission statement is (or should be) meeting the information needs of your community. Clearly, helping your community with new infotech is an aspect of meeting their information needs.
>
> Aside from this, it is incredible PR for your library to be seen as the go-to place when it comes to questions about infotech. Being a community leader is a good way to get positive recognition. With positive recognition comes being valued, and increased use of your vital and active library. Whoop!

All good stuff—particularly within the context of Schmidt's earlier hierarchy of needs. Make sure new books are coming in (and get reshelved), make sure ready reference meets people's needs at the point of need, but if you can also provide some modest amount of venture capital (mostly time, some money), the rewards may be considerable.

The Hazy Crystal Ball

That Midwinter (*C&I* 5:2) lead essay offered sets of predictions and "things to know." I've offered similar lists from library bloggers in previous issues. Michael Stephens adds a new list in a January 12, 2005 entry at *Tame the Web* (www.tametheweb.com) "Twelve techie things for librarians 2005." It's an ambitious list

of "some things librarians need to be aware of"—apparently *all* librarians, although later he says these are things "I would want a knowledgeable, tech savvy staff to be aware of and consider for their libraries."

It's a long post—six pages in print form—and worth reading. Just a few of the twelve "techie things": Toolbars for library users, RSS feeds from the catalog and library web sites, presence (libraries as space, and social software tools), virtual communities, and open source software.

DVD Oddities

These two items relate to ongoing discussions going back over many issues:

- A February 7, 2005 *Wired News* story by Katie Dean says that Disney has stopped its "EZ-D" self-destructing DVD experiment—with no claims for success. People in stores that had the discs said they didn't sell and "just kind of quietly disappeared." The Convex Group, which purchased Flexplay (inventors of the environmentally absurd technology which makes *no* sense in the age of Netflix), continues to claim that it's got a great future—and, of course, releases no figures about its effort to market an independent Christmas film using this method and limited theatrical release.
- A January 27, 2005 *CNN/Money* story on the two competing high-density DVD formats gets it wrong. It says that HD DVD "is compatible with existing DVD players"—but what it *means* (and says right after that) is that HD DVD *players* will be able to play existing DVDs. Then it goes on to say that Blu-ray can store more data, "but only did its leading developers…announce that Blu-ray machines will also play old DVDs." Not that there was even the *slightest* chance that Blu-ray players would ever have been introduced into the U.S. market without DVD (and CD) compatibility! So the big contrast in the first two paragraphs, shorn of error, is that HD DVD players will play DVDs, whereas Blu-ray players…will play DVDs. There's more to the story (including a claim that DVD has "one of the leakiest copyright protections known to man," which the music industry may find a laughable claim), but that's the key story. (I could be wrong, but I honestly don't see *how* a high-density DVD can possibly be played on a current DVD player…and have seen no other stories hinting that such is the case.)

The Black Pirate

The final mini-review in last issue's OFFTOPIC PERSPECTIVE was for this 1926 silent film with Douglas Fairbanks. It was filmed in two-strip Technicolor, a process that involved photographing each frame simultaneously on two black-and-white reels, with color filters in front of each side. Prints from each negative were made (on thinner-than-usual stock) and glued together. As I noted in that review, the movie was great—but the film was either shades of purple, shades of brown, or shades of blue. "The flick itself—"amazing action scenes" with Fairbanks' swordsmanship and all—is good enough to make me *really* want to try the restored version." So I added the Kino edition to my Netflix queue and jumped it to the top. It's the first time in over a year that the #1 item on our list, marked "available now," hasn't turned up for three cycles running—but it finally did.

This "special edition"—the LaserDisc edition reissued on DVD—*is* full color…sort of. The later *three*-strip Technicolor process may be the best color process Hollywood ever had, and prints from those movies remain vivid and delightful. The *two*-strip process has inherent limitations: There's no yellow at all, and really no true greens. It is "natural color" of a sort and remarkable for 1926, but not what you'd think of as full color today. The Kino edition includes a commentary track by a film historian who goes on at length about early Technicolor and what happened with this movie. Filming required two or three times as much lighting. It wasn't feasible to do location shooting (except a few scenes just offshore). It's a remarkable process and a remarkable movie—and now I realize that the movie was *intended* as a sendup as well as tribute to pirate movies, which makes a lot of sense.

I didn't mention one oddity in the mini-review: The opening credits include a "Music by" credit. Turns out Fairbanks had a score composed for the movie; a keyboard reduction might be played when the movie was shown. For the Kino edition, that score was recorded with an orchestra.

Bottom line? The color version is certainly more engrossing, and if you've never heard of the great sail-splitting scene (as Fairbanks splits the mainsails on a ship by riding down the sails, knife extended), you

really should rent the movie—but the Treeline version was enjoyable as well.

Jumping the Shark

Finally, one reader wondered about my casual allusion to "jumping the shark" in a commentary. If you don't know the story, it comes from a *Happy Days* episode in which Fonzie ski-jumped over a shark—and the sense of some viewers that the show went straight downhill from there. A popular website—oh, go find the URL yourself—devotes itself to claims of "jumping the shark" episodes in other series. It's one of those oddball memes that strike even if you never saw the episode and never visited the website.

PC Progress, November 2004-March 2005

Abbreviations for magazine names: P = *PC Magazine*, W = *PC World*, C = *Computer Shopper*.

Desktop Computers

As several roundups make clear [P23:20, W23:1, C25:2, P23:23], the third version of Windows XP Media Center Edition may finally be worth owning—and HP's Media Center Photosmart PC m1050y (anywhere from $2,169 to $5,578, depending on the roundup) is the hot unit.

For something different, *Computer Shopper* reviews five "underdog" PCs—systems from companies you've never heard of. I find it a bit laughable that xVx (that's the company name) offers "lifetime toll-free support," since that's not going to be longer than the life of the company—but if you're a risk-taker, you may find some of these offerings interesting[C25:1]. Of five units tested, one scores high enough for an Editors' Choice: the Elite Titan 64 ($1,999) from Elite PC. You get a 2.4GHz Athlon 64 3400+, 1GB DDRAM, 256MB ATI Radeon 9800 XT graphics, two 36GB 10,000RPM hard disks in RAID 0 and a removable 250GB hard disk, a DVD burner that may or may not be multiformat, a TV tuner card, Creative Audigy 2 sound card, and XP Pro. No display, no speakers, three-year warranty.

PC World reviews eight "cheap PCs"—but, being *PC World*, the features comparison only covers the Top 5. Best Buy and top rating goes to the $505 Dell Dimension 3000, an odd configuration with a low-end CPU (2.4GHz Celeron D 320), remarkably tiny hard drive for 2005 (40GB), and *no* optical burner (a 24-48X CD-ROM drive)—but it includes a 15" LCD display and they throw in a printer. (For $18, you can upgrade the hard disk to 80GB.)

Digital Cameras

Seven megapixel cameras may be the current "sweet spot" between semi-pro models (usually 8MP) and lower-end units (3 to 5MP). This roundup includes five cameras costing $500 to $700. All but one offer true 7MP resolution, and the exception has a 6.3MP sensor that creates competitive images[P24:1]. Three earned Editors' Choice ratings. Canon's $700 PowerShot G6 has a satin aluminum body, loads of control (but automatic shooting as well), the equivalent of a 35mm to 140mm zoom lens, and 1650 lines of resolution, the best in the roundup. Canon's $600 PowerShot S70 is a great compact choice and yields 1550 lines of resolution; it's a little faster (in terms of light gathering) than the G6, but a little less powerful. The third Editors' Choice is the "lower-resolution" model, Fujifilm's $500 FinePix E550. Fujifilm's unique CCD sensor has octagonal photodiodes; putting the camera into 12MP "interpolated" mode increases the *actual* resolution from 1375 lines to 1550. The camera is mostly plastic with a metal faceplate; it's fast and has a 32.5mm-to-130mm 35mm-equivalent zoom lens.

This mini-roundup[P25:2] covers ultracompacts, "small enough to fit in a shirt pocket." That means some compromises somewhere, but one of the seven tested still earns an Editor's Choice: the $399 Canon PowerShot SD300 Digital Elph, a 4MP camera with a 2" LCD, 3x optical zoom, and very good images. What's interesting here is that this 4MP camera earns Editors' Choice against a field that's mostly 5MP: It's how you *use* the resolution that counts.

Free Software

It's been a while since *PC Magazine*'s done a big roundup of freeware. This roundup [P23:20] evaluates 21 applications including office suites, separate productivity items, graphics tools and PDF writers. There are no Editors' Choices—in most cases, you still get more from commercial products—but these are lengthy, careful reviews. Many people will find OpenOffice an acceptable alternative to Microsoft Office, for example, and some free graphics tools con-

tinue to be important, such as The GIMP (GNU Image Manipulation Program), a classic Unix/Linux image editor that began at UC Berkeley. It runs on Windows too, "just as well as it does on Linux," but it can't compete with programs such as Adobe Photoshop Elements. It is, to be sure, $100 cheaper (as in free). By the way, if you remember VisiCalc fondly, Dan Bricklin's brought it "back from oblivion," without copy protection. It's a 27KB download (no, that's not a misprint: even on a dial-up connection, it should download in a few seconds) from www.bricklin.com and should run really, really fast on today's PCs. "You may be amazed at how much calculating power is packed into this 27KB historical gem."

Mass Storage

This roundup of a dozen backup devices in four categories is a good example of why I'll be happy to see *Computer Shopper* go away[C25:2]. Here's the opening sentence: "In the world of digital storage, there are two types of people: those who never back up their data, and those whose hard drives have crashed." What nonsense! Millions of people *do* back up their data and have never experienced disk crashes—probably tens of millions if corporate PCs with auto-backup systems are included. It's like saying that nobody uses virus software until after they've been infected: Ridiculous and demeaning to the readership. Meanwhile, the roundup offers Editors' Choices to Plextor's $99 PX-712A DVD burner (internal) and Buffalo's $399 LinkStation Network Storage Center (a 250GB server).

Media Hubs

I'm not sure this category makes sense yet (or ever), but *PC Magazine* offers an early roundup (raising that question) [P24:3]. Of four digital media hubs (plus two briefly reviewed in a sidebar), two earn Editors' Choices: the $129 Apple AirPort Express (cheap, elegant, music-only, iTunes-only, 802.11g built in) and $299.99 Roku PhotoBridge HD1000, the "best digital media hub you can buy," with support for several music formats, MPEG-2 video, JPEG photos, and strong HDTV support.

Notebook Computers

Wide-screen notebooks offer an interesting mix of entertainment (expensive DVD players but with *much* larger screens than dedicated portable DVD players) and usefulness. This roundup[C24:11] includes five notebooks costing $1,899 to $3,864 and has a set of results I've *never* seen before in a comparative computer review: *all* of the systems reviewed are Editors' Choices! I'll summarize the top-rated and bottom-rated of the five, noting that the HP Pavilion ZD7000, Sony VAIO VGN-A190, and ABS Mayhem G1 fall somewhere in the middle. The top-rated Dell Inspiron XPS (8.8 out of 10) costs $3,864 (most expensive in the roundup), uses a 3.4GHz Pentium 4 Extreme Edition CPU, and includes 512MB DDR, a 60GB hard disk, a multiformat DVD burner, and a 15.4" 1920x1200 display, a resolution matched only by the Sony with its slightly larger (17") screen. It's fast, includes 802.11b/g wireless, and has high-end graphics support—but it's also heavy (9.4lb without adapter) and the battery only lasted about two hours. Bottom-rated but still an Editors' Choice is the $2,799 Apple PowerBook G4 (8.1 points), which also has 512MB RAM and 802.11b/g support, but has an 80GB hard disk, less powerful graphics, a DVD-R burner (no DVD+R support), and a 17" 1440x900 screen. On the other hand, it's considerably lighter (6.9lb) and has good battery life (2 hours 40 minutes)—and, of course, you get Apple's sleek design.

This roundup covers five lightweight notebooks (no more than 4 pounds without power brick), with a sidebar for two "real pocket PCs"—the OQO Model 01 and Sony VAIO VGN-U50 (not sold directly in the U.S.). Editors' Choice among the lightweights is the $2,049 Fujitsu LifeBook P7010D, 3.3lb. without adapter; the keyboard is a little undersized and the included biometric security (fingerprint) is "picky," but it's compact (1.4x10.3x7.8") and fairly well equipped, with 512MB RAM, a 60GB hard disk, a DVD/CD-RW combo, and a 10.6" 1280x768 screen. As for the pocket units, the Sony gets a plausible rating, but the OQO earns a scant 6.7—it's expensive, slow, and has lousy battery life.

Optical Drives

The bad news, if you're a true speed demon: According to this roundup of 16X DVD burners with dual-layer capabilities[P23:22], they're not much faster than 12X burners. For that matter, 8X burners do almost as well. (The fastest unit burning a 4.37GB disc took 6 minutes 3 seconds with DVD+R). But these internal drives are versatile (all four handle every DVD medium except DVD-RAM), fast, and relatively

cheap ($99 to $120), and all come with decent software suites. Three of four earn at least four-dot ratings, including the 4.5-dot Editors' Choice, the $120 Pioneer DVR-A08XL, which includes a comprehensive software suite, produced the most compatible DVDs in the roundup, and—in addition to the fastest DVD-R and DVD-RW burn times—is the only one to include 4X dual-layer burning, meaning you can create an 8.5GB DVD+RD disc in just under 24 minutes. It's a slow CD ripper, though, so don't throw out your high-speed CD drive just yet.

Phones and PDAs

PC reviews fourteen "smart" phones in this extensive roundup[P23:18], including units running BlackBerry OS, Palm OS, the new Windows Smartphone (Microsoft Windows Mobile for Smartphone, if you must), and proprietary operating systems. Editors' Choices are the $200 BlackBerry 7100t, "the first BlackBerry that truly feels like a phone," for those who want something like a keyboard, and the $470 Nokia 6620 for those who don't. A phone with 27MB RAM, 12MB flash RAM, and an MMC slot—for almost $500? If it meets your needs, why not? (The BlackBerry has a 20-key "hybrid keypad" that relies on predictive text. It also has a slightly larger and higher-resolution screen than most smart phones, 2.1" with 240x260 resolution. And it actually has 36MB RAM!)

This mini-roundup includes three units that are predominantly PDAs, three more that are mostly smart phones[P24:1]. They're all interesting products, including Dell's $500 Axim X50v with a 3.7" 640x480 screen, Motorola's sleek aluminum Moto Razr V3 (also $500, but only with a Cingular contract), and two other new Motorola phones. The single Editors' Choice in the lot is the latest Treo, palmOne's $600 Treo 650. The keyboard's a little better than on previous versions, there's Bluetooth if you want to go for the Full Borg look (walking around with a portable headphone attesting to being owned by a cell phone), a much faster processor, and decent battery life for a combined phone/PDA/BlackBerry replacement. No WiFi, but it does have RAM that doesn't lose your data when the battery dies. All three Moto phones get four-dot ratings; the Razr is definitely the hot new item, at least for looks.

This roundup includes a dozen portable devices [W23:1]. Editors' Picks among PDA phones are the $599 PalmOne Treo 650 and $299 RIM BlackBerry 7100t; no smart phone, handheld computer, or mobile IM device earns that honor—but the $600 Motorola Razr V3 gets a high rating.

Portable Players

Maybe some people really do want to watch low-rez TV on the go instead of, say, reading—and Microsoft Windows Portable Media Center seems to make that feasible if, to my mind, a bit silly. This roundup [W22:12] reviews five high-capacity audio players (20GB and up), four "midcapacity" players (1GB to 5GB), five flash players (256MB or 512MB), and six video players. Best Buy among the high-capacity audio players: No big surprise, Apple's $399 40GB iPod, with the $250 20GB Creative Zen Touch and $300 20GB Rio Karma trailing. Rio's $249 5GB Carbon beats out the iPod Mini among midcapacity players. They like iRiver's $160 IFP-790 (256MB) best of this small group of flash players (it includes an FM tuner/recorder and voice recording), and has remarkable battery life). Finally, while no video player earns a Best Buy, the $499 Creative Zen Portable Media Center gets the highest rating of the group—but it's awkward to hold and on the heavy side (12oz.).

This roundup sticks with music and photos, including four disk-based players costing $250 to $600 [P23:23]. All four (Apple iPod Photo, Creative Zen Micro, iRiver H320, Virgin Player) get strong four-dot reviews—but the Creative Zen Micro reaches 4.5 dots and Editors' Choice status. The $250 Zen Micro is a 5GB player that includes an FM receiver, voice recording, and a driver to provide Windows Media Player 10 compatibility; it has "impeccable" audio performance. The iPod Photo review includes an interesting limitation: The displayable photos on an iPod can only come from one computer!

Want to capture streaming internet radio (or other streaming audio) to use on your portable player? This roundup[P23:21] reviews six programs that offer those capabilities. Editors' Choice is $30 Replay Music 2.0 ($30), which can break a stream into individual MP3 or WAV files and attempt to tag them with song and artist information. Replay also includes CD burning functions. The automatic identification isn't foolproof (*PC*'s tests showed about 80% right). If you have a Mac, consider the $32 Audio Hijack Pro 2.0, which can grab audio from any application, "even your PC's built-in DVD player." What about legality? Since capturing internet radio streams

should be just as legitimate as recording off-the-air broadcasts, the programs themselves should all be legal under the (embattled) Betamax doctrine. As for capturing subscription streamed audio, chances are the click-through contract you "sign" to sign up for such services expressly forbids capturing, but maybe not. Capturing audio from a DVD player may be fair use, but is explicitly forbidden in on-screen copyright assertions. (Does Audio Hijack violate DMCA? There's an interesting question…)

Printers

What's the difference between a general-purpose inkjet printer and a photo printer? Except for dedicated printers, mostly the name. This roundup [P23:20] evaluates 15 printers and six dedicated photo units. While 10 of the 15 are described as photo printers, *PC Magazine* didn't find clear distinctions. Some photo printers add extra inks to the standard four—but so do some general-purpose printers. Editors' Choice for an all-purpose printer is the $150 Canon Pixma iP4000 (called a "photo printer" by Canon), for balanced performance, speed and quality in text and photo printing. HP's $150 Deskjet 6540 earns an honorable mention. Another Canon printer, the $500(!) i9900 Photo Printer, gets the nod for those primarily interested in photos; it uses eight ink colors (with eight cartridges) and prints photos *fast*—30 seconds for a 4x6, 65 seconds for an 8x10! (The iP4000 is more typical: 65 seconds for a 4x6, 150+ for an 8x10. The HP's substantially slower.) If you want a dedicated unit to make great 4x6 prints and do nothing else, you can't beat the $200 Epson PictureMate for quality and price: It makes high-quality, smudge-proof, waterproof, long-lasting prints at a precise materials cost of $0.29 per print, paper and ink combined, which is about what you'd pay for good-quality traditional prints. It's not that fast—135 to 142 seconds per 4x6.

Need speed? This roundup includes a dozen high-speed laser printers, six monochrome, six laser[P24:1]. To qualify for the review, printer engine ratings had to be at least 25ppm for monochrome, 20ppm for color, and the printers had to hold at least 1,000 sheets of paper (but could use add-ons to reach that capacity). Editors' Choice in the monochrome set is HP's $3,800 LaserJet 9500dn, a hefty beast (168lb.) that yields great speed, excellent text output and decent graphics and photos, very heavy-duty paper handling (it's rated for 300,000 pages per month and prints tabloid-size paper; you get a duplexer and 1,100-sheet capacity for that price). Consumables are cheap: The cartridge costs $270 and is supposed to print 30,000 text pages. That's 0.9 cents a page. If you don't need tabloid output, they suggest the HP LaserJet 4350dtn; it costs $2,180 and is essentially as fast as the 9500dn—but it costs more for consumables, 1.1 cents per text page. (After roughly 810,000 pages the total cost of the 4350dn will be higher. If you keep a printer long enough to print 1620 reams, that is.) Among color units, the Editors' Choice has been around quite a while: the Xerox Phaser 7750DN, their Editors' Choice a year ago. It's not cheap ($6,800) but it's fast, easy to set up, offers excellent output, and isn't that expensive to run (1.5 cents for monochrome pages, 8.4 cents for color pages).

This roundup of multifunction printers [C25:1] includes four inkjet and two laser units in a broad price range, $150 to $700. Editors' Choice is Canon's $199 Stylus CX6600, one of the fastest printers (5ppm for text, 3 minutes for an 8x10 color photo) with top print quality and reasonable ink costs.

Utility Software

This survey article covers ten file-search utilities that search Outlook mail databases and the files on your PC in a single step[W22:11]. It's an odd software category and the range of products is a little odd too. Two programs earn Editors' Picks: The DtSearch Desktop with Spider ($199), expensive but powerful, and Lookout Software Lookout (free, no tech support), which installs as an Outlook toolbar.

The big two antivirus tools "have evolved to become more and more alike" and now distinguish themselves by adding new features[P23:19]. This roundup gives 4.5 dots and Editors' Choice to Norton AntiVirus 2005, which now includes a simple firewall, albeit called "Internet Worm Protection." A broader roundup[C25:1] includes six packages, but confuses the issue by rating antivirus programs against full internet security suites. Not surprisingly, Norton AntiVirus loses points for not having a full firewall or doing real-time spyware detection; one of the full suites, PC-cillin Internet Security 2005 ($50), gets the Editors' Choice—even though its track record for virus detection isn't quite as solid as Norton.

How do this year's major personal firewalls stack up? This review covers the big two, McAfee and Nor-

ton [P23:20]. McAfee's improved considerably—but it's vulnerable to "leak attacks." The Editors' Choice goes to Norton Personal Firewall 2005 ($50), which blocks all but one leak test and includes privacy control. Notably, it's almost impossible to shut down NPF through software attacks or even a direct Task Manager shutdown.

Put the two together (and add other utilities) and you have security suites. This review [P23:21] goes into considerable detail for each of the two major suites (McAfee and Norton). Norton wins again, by a considerable margin. On the other hand, while Norton AntiSpam is good, a two-item review[P23:22] says Cloudmark SpamNet 3.0 is a little better. Both get 4-dot ratings, but Cloudmark—a $40/year subscription service that relies on community-based filtering—gets the Editors' Choice. A followup First Look[P24:2] gives a second Editors' Choice to ZoneAlarm's $70 Security Suite 5.5, while retaining the Editors' Choice for the Norton suite. *PC World*'s review [W23:2] includes Trend Micro's $50 PC-cillin Internet Security 2005 along with McAfee and Norton, and gives Trend Micro the highest rating of the three—apparently for its low price and for working seamlessly with XP/SP2's Security Center. Another *PC Magazine* roundup, part of a long "false sense of security" feature article [P24:3], reduces Norton Internet Security to an honorable mention—mostly because ZoneAlarm Security Suite 5.5 is that much better.

This roundup of antispyware tools [P23:18] includes three commercial products. Editors' Choice is the priced version of Lavasoft's Ad-Aware, SE Plus 1.02. *PC*'s other Editors' Choice, Webroot's Spy Sweeper 3.0, isn't part of the survey. A more complete roundup [P24:3] drops the Editors' Choice for Ad-Aware, leaving Spy Sweeper 3.5 ($30) as the only Editors' Choice; as with security suites, the change is because the best has gotten significantly better. A *Computer Shopper* roundup [C25:3] seems to regard antispyware tools as "privacy protectors," which is an odd take—and this one rates Spybot Search & Destroy 1.3 *higher* than Webroot Spy Sweeper 3.5 (which in turn rates higher than Ad-Aware SE Plus).

Trying to be anonymous on the internet? This roundup[P23:21] reviews four "anonymity apps," all of which work by routing your web requests through a remote proxy server to mask your IP address. Editors' Choice is GhostSurf 2005 Platinum ($50); in addition to IP-masking (using the company's own servers), it includes other privacy tools and an antispyware program.

Videocameras and Software

"It's time your home movies went digital." That's the tag line for this roundup of 17 digicams and seems right on the money: Unlike still cameras, it's hard to make a good case for continued use of amateur-level analog videocameras.[P23:20] This thorough treatment will probably convince you to stick with MiniDV rather than DVD (DVD digicams require on-the-fly MPEG2 compression, which yields inferior picture quality) and that you might not want the smallest or cheapest cameras around. There are four Editors' Choices based on price range and recording type. JVC's $449 GR-D33US is your best bet in a bargain digicam; Sony's $700 DCR-HC40 MiniDV Handycam does the best job in the $501 to $800 range; and for those willing to spend a bit more, Canon's $999 Optura 400 shoots the best video in the roundup and pretty good 2MP still photos. Finally, if you *must* record directly to DVD, choose Sony's $999 DCR-DVD201 DVD Handycam: It offers the best video of any DVD unit.

Interesting & Peculiar Products

Better DVD Repair?

One ALA Midwinter 2005 exhibitor was showing a different kind of CD/DVD repair system: the VMi3500 Buffing Unit from VenMill Industries (www.venmill.com). I can't vouch for the system, obviously, but the idea makes sense.

As far as I know, all other optical disc repair systems work by abrading the "playing side" of the disc to remove light scratches and dirt that won't come off with washing. The problem with abrasion, in addition to consumables cost, is that it can only be done so many times before the disc is no longer playable—either because there's no polycarbonate layer left or because the layer's so thin that the laser doesn't focus on the information layer properly. I've heard a range of numbers from competing disc-repair vendors as to how often a disc *can* be repaired. DVDs have much thinner polycarbonate layers than CDs (because they're all fundamentally two-sided), so the maximum number of repairs is likely to be smaller.

The VMi3500 works differently. It buffs the disc to heat it—enough to soften the polycarbonate

slightly, so that the buffing will flow polycarbonate into light scratches. According to the sales materials, *no* material is removed from the discs under repair, which means that light scratches could presumably be repaired an indefinite number of times.

I saw it in action and it seems to work very well. The operation cycle (30 seconds for light problems, 60 seconds for deep buffing) includes a cool-down cycle, so the disc when it emerges from the tray is warm to the touch but not dangerously hot. It's a simple process: Open the tray, put the disc in, spread some "AC fluid" (antistatic fluid) with the supplied applicator bottle, push the tray in, and hit the button. When the cycle's done, the tray opens. There's a daily step to clean the buffing pads themselves, using a supplied cleaning disc (which itself needs to be cleaned every so often). You replace the fluid after 500 discs and the buffing pads after 2500 discs (the machine starts warning you after 2400 cleaning cycles).

The bad part: The machine is expensive, somewhere between $2,500 and $3,000. The good: Supplies are *very* cheap, a few cents per disc—and, if it works as advertised, you can keep fixing normal wear and tear on your discs indefinitely.

"Normal wear and tear" is an important caveat. The sales DVD says quite clearly that the unit will *not* repair discs with *heavy* scratches (0.001" or deeper, I believe)—but neither will most other units. And, of course, the buffing unit can't do a thing when borrowers who don't understand push-to-release hubs wind up cracking the disc hubs. Does that still happen as often, or are most library patrons now familiar with the way DVD cases work?

This isn't a sales pitch. I don't know whether *for most library applications* this unit is better or worse than the range of products (almost all less expensive to purchase and probably more expensive to run) that fix discs by removing the scratched polycarbonate layer. I do know that it's an interesting and potentially worthwhile alternative. (If I've missed other disc repair systems that avoid abrasion, I'm sure the manufacturers will let me know!)

Another Stinky Peripheral?

Here we go again: NTT Communications Corp. (Japan) is testing a new service that "sends out smells according to data received over the Internet." According to Yuri Kageyama's December 8 AP story, "Users attach a device to their laptops that resembles a crystal ball with a nozzle. The device receives aroma data from the central server and exudes fumes from the nozzle in accordance with that reading." (I guess everyone uses laptops in Japan…)

The test combines hard-hitting factual information with a must-have peripheral: They're using it to "send combinations of 36 scents…as horoscope readings." Or, rather, *one* horoscope reading, apparently: "Cancerians get a waft of chamomile, lavender and vetiver oils…while people born in Pisces get a concoction of lavender, clary sage and lemongrass."

The story also says NTT is considering this doohickey "as a commercial product for aromatherapy, testing incense or just plain fun." *Testing incense*? By combining prepackaged perfumed oils? How about perfume? Or, I can just see it: Scents to enhance your gaming experience—should go great with shoot-em-ups and similar wonders.

"It's not yet clear how much the product will be sold for or if will be released outside Japan, company officials said." I, for one, can wait. Next step, of course: a smaller version that can be bundled with smartphones…

TiVo: What Went Wrong?

Edward W. Felten posted an interesting essay January 21 on *Freedom to tinker*: "Why hasn't TiVo improved?" "The name TiVo was once synonymous with an entire product category, Digital Video Recorders. Now the vultures are starting to circle above TiVo, according to a New York *Times* story by Saul Hansell. What went wrong? The answer is obvious: TiVo chose to cozy up to the TV networks rather than to its customers."

I didn't realize TiVo's been around for eight years. Felten says it's selling "essentially the same product" it did in 1997—largely, he believes, because they won't add features that might offend TV and cable networks (e.g., ReplayTV's commercial-skipping methods).

So how does TiVo plan to become relevant as a brand rather than a generic name for (other forms of) DVR? By hiring a new CEO—"someone with less of [the current CEO's] fierce believe in the power of TiVo's technology. [Board members] said they preferred someone with an ability to repair TiVo's relations with the big cable companies."

Matt Haughey at *PVRblog* commented on Felten's comment, also on January 21, noting that "lawsuits are killing innovation" and that "anything that helps customers enjoy TV, movies, or music is a target for

lawsuits." Haughey argues that TiVo needs to "damn the torpedoes—**continue to make technology that makes customers happy, regardless of what Hollywood thinks**." A bunch of comments appear, ranging from geek superiority ("Why buy a TiVo when you can build your own equivalent?") through thoughtful comments on what DVRs/PVRs really need—to statements flatly asserting that it's illegal to copy a TV show to DVD, *period*. And, to be sure, at least one person saying, "Anyone who is actually interested in watching television has no other reasonable option."

Convergence?

PC Magazine 24:1 (January 2005) gives an Editors' Choice to the HP Digital Entertainment Center z545 in a full-page "first looks" review. The z545 is a Windows Media Center Edition PC, designed specifically to fit into the living room. It's the size and shape of a large home theater component (4.4x17x16.6"), horizontally oriented, black brushed aluminum, and the front panel looks as plain as most components. Flip-down doors reveal the DVD drive (a dual-layer multiformat burner), AV and FireWire inputs, memory card slots and USB ports, and—HP's interesting new feature—the 160GB *removable* hard disk that complements the 200GB hard disk inside the box. You can buy extra 160GB cartridges for $199 each, which is outrageous for a 160GB disk but may be reasonable for this level of integration.

Drawbacks: Neither TV tuner is HD, it's more cumbersome to use than a simple DVD player—and not a whole lot else. It comes with wireless keyboard (with trackball built in) and full-function remote control. The $1,999 price doesn't include a display.

FEDs and SEDs

I've been mentioning SEDs for some time—surface conduction electron emission displays, which use millions of tiny electron emitters to create a CRT-quality big-screen display without the weight, size, and manufacturing fragility of big-screen CRTs. It's been "promising" for a long time, and (as reported earlier) Canon and Toshiba say they'll be producing large-screen SED televisions by 2006. (Toshiba now says some sets will be out this year, costing as much as plasma sets but offering better quality.)

FED stands for field effect display, a similar technology relying on coatings of diamonds or carbon nanotubes. It's also two layers of glass, one with a cathode grid and coating, the other with phosphors—and, as with SED, the two layers are one or two millimeters apart. As with SED, the color spectrum and overall picture should be comparable to direct-view CRTs, but on much larger screens—and for all their heft and size, CRTs still provide the best television (and computer) picture you can buy. FED appears to be two or three years away (which can translate into "possibly never" in the tech field).

Really Cheap Computers

As one of my predictions during Midwinter's LITA Top Tech Trends, I posited that some PC company (I suggested eMachines/Gateway as a strong possibility, Sony as a weak one, and "some PC equivalent of Apex" as a third) would—during 2005—start building a PC equivalent to the Mac Mini: A $300 to $400 book-size machine with enough disk storage, CPU power, RAM, connectors, optical storage and software to handle most basic computing and web browsing. I suggested $300 as a Linux price, $400 as a Windows price. I also noted that a very cheap machine along these lines was already being built, but primarily (I thought) for developing nations.

I was at least half-right. According to Steve Fox's "Plugged in" column in the January 2005 *PC World*, AMD and international partners are "readying" the Personal Internet Communicator, "a fat-paperback-size machine that's part of its '50x15' initiative, intended to outfit half the world's population with computers by 2015." The unit uses AMD's Geode GX500 CPU and comes with 128MB DDR RAM, 10GB hard disk, a new "Windows XC," and a suite of basic applications. It's nowhere near as powerful as the Mac Mini, but it's not aimed at the same market—and it's a *lot* cheaper: With keyboard, mouse, modem, and four USB ports, $185; $249 with a 15" CRT. It won't be sold in the U.S. or other "first world" nations.

That unit seems to be a *very* basic system, although it's probably several times as powerful as the last pre-Pentium4 PC I owned (which cost ten times as much). It's not the unit I'm projecting. That unit would, more likely *will*, be a preconfigured system with *plenty* of power for mainstream processing (but probably not gaming), and the $400 price ($300 with Linux) might not include the display (after all, the Mac Mini excludes keyboard, mouse, and display)

It's not much of a leap. As of late January 2005, eMachines sells the T3624 minitower for $360—with

a 2.66GHz Celeron, 256MB DDRAM, 60GB disk, CD-RW drive, fax/modem, Windows XP Home, MS Works, Money, and Encarta and others (and antivirus and spyware protection), speakers, keyboard, and mouse—but no display. Get that system down to book size and you're there. By the end of this year? If the Mac Mini is doing well at all, I'd bet on it. That little box will be no more suitable for library or college use than a Mac Mini unless you come up with a great way to chain it down, since it's even easier to drop into a backpack than a notebook computer.

Doing Without MS Office

When did WordPerfect Office become a "home suite"? Maybe there's always been a "home" version that lacks the database—but I was still shocked to see the price of WordPerfect Office 12—Home Edition: $69, according to a December 28, 2004 *PC Magazine* review. That buys WordPerfect 12, Quattro Pro 12, a task manager, Corel Photobook and Corel PhotoAlbum—and the full Norton Internet Security 2005 suite (with 3-month trial subscription), Pinnacle Instant CD/DVD disc recording, and a Britannica Ready Reference encyclopedia. The review calls it "friendlier and more usable" than the other leading MS Office competitors (StarOffice and OpenOffice), and gives it a slightly better rating than Microsoft's closest competitor.

That competitor, MS Works Suite, has always been an odd duck—and the secret way to buy the full Microsoft Word cheap, if you don't have an office suite and don't do much spreadsheet or presentation work. The key word is "Suite," and at $100 it's more expensive than MS Works, but you're getting the full Word—along with Works spreadsheet/database, Streets & Trips, Encarta, Money, Picture It! Premium, and a task manager.

I tried Works Suite at one point. The "database" may be adequate for my modest needs, but the spreadsheet couldn't cut it—and I don't demand all that much of a spreadsheet.

Quattro Pro has always been a worthy competitor to Excel. I never cared for earlier versions WordPerfect as a writing program, although it's great way to "process words"; newer versions may be better writing tools. If what you really wanted were the MS programs, you can set the Corel programs to resemble Microsoft equivalents and save in Office formats by default. You won't get perfect compatibility, but for most purposes you'll be fine.

SCOTTeVEST Classic: Geek Chic!

Bill Howard at *PC Magazine* never lets us forget he's a geek and proud of it. His December 28, 2004 "Gear to go" column talks about all the stuff a true presentation geek needs to be fully productive on the road. But, you know, it's hard to cart all that stuff on a plane, and it's hard to get at your bags once you're on board.

> I've been wearing an equipment vest that holds my music player, headphones, pen, cough drops, paperback novel, wallet, ticket, cell phone, tissues, and more. The most thoughtfully designed is the SCOTTeVEST classic ($130)…with some 30 interior pockets—so many that you have to remember which overlapping, zippered, Velcro pocket has your wallet… The look is somewhere between geek and safari chic, and I'm fine with that. When you get to the airport X-ray machine, you just drop the whole thing in one of the bins (it makes a big *thunk*) and retrieve it on the other side.

Howard also proudly carries the "largest rolling bag that fits in overhead bins (22 by 14 by 9 inches)," and I have words for people carrying those 22" bags, ones not repeatable in polite company. American (at least) recently expanded most overhead bins so that the biggest carry-on bags that fit in their sizers—21" tall—will fit nicely, wheels-in. That leaves a *lot* more space for bags: A 44" section can hold three bags with a little room to spare. So now I'm seeing all these bags that are just *one inch too tall* to fit wheels-in. Shazam: One-third of the space is shot. But Howard and his ilk do get one more inch to stuff more stuff into. Arggh…

Conference Report

EDUCAUSE Mid-Atlantic Regional Conference

Elena O'Malley

This conference, January 12-14, 2005, had the theme "Navigating Together: New Strategies and New Partners for an Uncharted Future." Some presentations are available at www.educause.edu/Proceedings/ 6027.

College Students and Technology

Using Technology to Connect with Today's Generation

Sean Carton, Dean, School of Design & Communication, Philadelphia University, spoke at this general session.

Carton's main point was that current traditional undergraduates expect constant and steady internet access and are not loyal to any one medium of communication. He cited the Pew Internet and American Life Project's finding: 46% of 18-27 year olds use instant messaging more than email. He then noted that at one institution, students were annoyed at official announcements sent via IM because they considered this a personal medium, not an official one. On the other hand, he also said some students are beginning to think of the web as a traditional medium and may consider it as outdated as print. Carton exhorted conference-goers to "be everywhere your users are in the form that best suits them at the time" and recommended that we publish in multiple channels (print, web, email, etc), perhaps trying just a few official IM messages per semester to test the waters.

He cautioned, "Technology changes quickly, people change slowly."

Comments: This is a difficult balance to establish and maintain: We have to innovate, or our users will lose us in the sea of ever-emerging technologies, but we can't be too innovative, or we'll lose our users. His multiple channels suggestion is a good one, but libraries often do not have the staff and financial resources for that kind of duplication.

Student Use of Technology

Robert B. Kvavik, ECAR Senior Fellow & Associate Vice President, University of Minnesota, spoke at this discussion section, discussing the multi-institutional *ECAR Study of [traditional undergraduate] Students and Information Technology*, 2004: Convenience, Connection, and Control. A summary of key findings in pdf is available at www.educause.edu/LibraryDetailPage/666?ID=EKF0405: fee for the full report.

Library-related points:

- Students self-report spending less than an hour a week "using a university library resource to complete a class assignment" but spending between 3-5 hours a week on "classroom activities and studying using an electronic device."
- On a scale of 1 to 4, students put their skill level with "online library resources" at 2.88.
- 94.8% of students that used course management systems use online readings (e-reserves), and 24.9% of students perceived online readings in CMS as improving their learning.

A few other tidbits from the presentation:

- Most students felt the primary benefit of technology in classrooms was convenience. They were most comfortable with a moderate amount of technology in the classroom—not so little that the convenience benefits were removed, but not so much that the tech was creating extra work for them.
- Students also reported that PowerPoint (and presumably similar software programs) presentations often put them to sleep and felt such presentations depersonalized the relationship between instructors and students.
- Researchers did not find attitudes about tech correlated with gender or academic standing in this study but did seem to be related to year and major. Year and major may be connected, since freshman students are often undeclared. One definite point of correlation they found was that young males who spend a lot of time playing video games are likely to have worse grades.

Comments: The audience grilled Kvavik on the methodology of the study and he provided the details (available online in their key findings). ECAR is working on a similar study that includes more students and institutions. Kvavik said that we shouldn't apologize for technology being a convenience, rather than something that exclusively, quantitatively, improves learning. Unfortunately, this can be a tough pitch during budget negotiations, especially when things like CMS had been billed by some as a tool to improve and enhance learning, rather than just making it easier for students to get their online readings in their pajamas. On the other hand, improving convenience can be a way to increase competitiveness, at least according to EDUCAUSE—see their *Student Guide to Evaluating Information Technology on Campus*. www.educause.edu/StudentGuidetoIT/873

Librarians and Course Management Systems

Can a Course Management System Improve Information Literacy Skills?

Mary McAleer Balkun, Associate Professor, Chair, English Department, and Marta Deyrup, Assistant Professor, Librarian, both at Seton Hall University, gave this presentation.

After initially simply including an email link for librarians within Blackboard in each first-year English

class section with a brief in-class introduction of the librarian, they realized, to be most effective, they needed to limit themselves to fewer faculty members in higher-level courses who would actively promote it to the students. Balkun gave Deyrup access to two Blackboard courses and added her to the list of participants. There were a small number of students and Deyrup came to the class twice in the semester.

Based on the class list, students would select her name (the name on the list of participants they recognized as not belonging to a fellow student) and email her with questions. The four sample questions they showed were complex research questions, asking which resources would be best for specific topics. They said there was a range of complexity in the questions, but that questions were not frivolous and students liked having "anonymous" email exchanges, although sometimes they came into the library later for more in-depth conversations. Deyrup said this could also help to identify assignments or topics that were difficult or impossible to complete with the available library resources and to encourage more dialogue between librarians and instructors.

Comments: The library did not include emailed correspondence between Deyrup and students in the email reference question statistics, which surprised me. Setting guidelines might be mildly tricky—is it only the first emailed question, or subsequent follow-ups?—but I would think counting these transactions would be important in libraries where reference statistics might otherwise be falling.

Shared Mission, Sharing Resources: Librarians and Instructional Technologists Supporting Faculty Together

Rae S. Brosnan, Senior Information Technology Specialist, Donald Juedes, Librarian for Art History, Classics, & Philosophy, Milton S. Eisenhower Library, and Michael Reese, Assistant Director, Center for Educational Resources, all at The Johns Hopkins University, spoke during this session.

They worked to develop a model where there was a flow of information between faculty, librarians, instructional designers, and information technologists. The library received a grant to create the Center for Educational Resources. CER staff are instructional designers who provide technical expertise and project coordination. There were times, they noted, that not everyone needed to be at a particular meeting, and they had to learn to pull back from wanting to be involved with everything.

Juedes used the concept of librarians as concierges (rather than gatekeepers)—we know how to find and provide information on many topics. Librarians created subject guides for WebCT course in art history and also assisted IT with GIS/map creation for instructional purposes. Juedes described it as "shell-shock" to experience the increase in emailed reference questions after posting the librarian's email address in a WebCT course, but after awhile there is a sameness to the questions.

"Buzzword Bistros," weekly brownbags with specific topics, were hosted by different departments to increase cross-departmental communication.

Comments: I find it mildly disturbing at presentations of this type when audience members report that this all sounds very impressive but unworkable at their institution given the unwillingness of staff to cooperate. The curmudgeon in me can accept stagnation where the technology is too expensive or beyond the capacity of the existing staff to develop, but the optimist is disheartened at technology's potential to assist users being defeated by departmental feuds. This was a reminder to try to set a good example.

Educators and the Law

Impact from Washington: How Will National Policy Changes Affect You?

Wendy Wigen and Garret Sern, EDUCAUSE, focused on the impact of Voice over IP (VoIP) technology and what federal regulations might be developed because of it. Specifically, VoIP may cause changes or additions to the Telecommunications Act of 1996. Currently, there is a divide between regulations on telephones, TV, radio, computers/Internet. VoIP breaks the current molds, because it can involve telephone to computer, computer to computer, telephone to computer to telephone, and computer to telephone interactions.

Wigen and Sern point out that while EDUCAUSE is lobbying for the least possible amount of regulation (and the lowest fees and/or taxes), they pleaded for this issue to be taken up by upper-level educational institution administration (i.e. college and university presidents) as a lobbying point, since they are considered a more important voice than EDUCAUSE by members of U.S. Congress.

The presentation is a good overview of the topic and worth a look. www.educause.edu/LibraryDetail-

www.educause.edu/LibraryDetail-Page/666?ID=MAC0512

Pitfalls on Copyright Island: Inform, Permit, Comply

William N. Dobbins, College of Nursing, University of Arkansas for Medical Sciences, offered a basic overview of Title 17 USC Section 107 (fair use in the classroom) and Section 110 (display and performance in classroom, distance education via closed circuit TV) and subsequent legislation. Digital Millennium and Copyright Act of 1998 expanded and clarified Section 110. CONFU: 1994-1997 developed "safe harbor" guidelines but were criticized both for being too broad and too restrictive. TEACH Act of 2002 amended Section 110 to cover distance education.

TPM, technology protection measures, are being developed so that the copyright holder may prevent use even when fair use principles would otherwise allow it. Dobbins used the example of Universal Studios v. Corley, the case about the DeCSS code that decrypted one type of DVD copy prevention, to talk about fair use not being a guarantee of the ability to duplicate copyrighted materials.

Take a look back at *Cites & Insights* January 2003 and June 2003 for more on copyright and the DMCA.

A Pair of Non-Financial Bottom Lines

Interactivity and Student Engagement

Steven DeCaroli, Assistant Professor, Philosophy and Religion, Goucher College, Mary Helen Spear, Professor, Psychology, Prince George's Community College, and George H. Watson, Associate Dean, College of Arts and Sciences, University of Delaware presented this general session.

I don't remember who said what, but these two quotes stuck with me.

- After referring to a basic telephone as a "transparent" technology. "Technology reveals itself when it breaks. Computers are not yet transparent."
- "Outcomes assessment must include sustainability." This was in reference to a project that introduced first-year students to a technology that was not used in higher-level courses. The technology didn't produce the hoped-for increased retention in that field of study.

A theme in this conference overall was not just innovation, but supporting newly implemented technology over the long term.

Elena O'Malley, eom@post.harvard.edu, is the Head of Library Computer and Internet Services at Emerson College.

Session Report: ALA Midwinter 2005

MARS Hot Topics

Walt Crawford, RLG

Despite disclaimers that this was just a discussion with a few introductory remarks, it felt like a program, particularly since those introductory remarks took 40 minutes. The crowd started at perhaps 80 and grew to more than 100, I'd guess, including representatives from metasearch vendors, resource vendors (places like OCLC and RLG that are targets for metasearch), and lots of library people.

Andrew Pace

His underlying belief: Metasearch will work perfectly when or if all the data is in one database—and won't work perfectly until/unless that's possible.

Improving metasearch turns out to be hugely complex. The goal is to help users find what they need while minimizing what they need to know. (He quoted a bunch of Tennant's Tenets, his name for Roy Tennant's pithy sayings, such as "Only librarians want to search; everyone else wants to find" and "Good enough is frequently just that.")

The NISO-MI Wiki (www.lib.ncsu.edu/niso-mi/index.php/Main_Page) is supposed to be the key repository for what the groups are doing. There's still not a lot there, but it does include minutes for quite a few meetings.

Karen McNulty

Boston College uses MetaLib. She discussed early user reactions and the changes from MetaLib version 2 (which had a fairly dense interface) to version 3 (a "Google-like" interface).

Quick search for Boston College includes five general sources (including ArticleFirst and BC's online catalog) and five broad subject sources. You can go from there to a long list of subject sets—but MetaLib won't actually search many of the listed resources in each subject set.

Results are currently grouped by resource in BC's implementation. When they go to version 3, they expect auto-deduping and tabular results. Use of metasearch may depend on discipline.

She's hoping that standards will make more resources searchable, make results more consistent, and build user and librarian confidence in metasearch.

Discussion

While slow to start, this became interesting and sometimes mildly heated.

Peter Noerr made a big spiel for how great metasearch engines really are. He said that metasearch engines could (universally?) handle fielded searches, translating to less-specific searches as resources require. Relevance engines are still difficult. He seemed to suggest that only getting a few records from each resource was a good thing, as it didn't overwhelm users the way Google can (but unless those few records from each resource all come from comparable relevance engines, and unless the resources are all of comparable richness for the search, I find it hard to agree with that stance). He says searching is moving away from Boolean logic.

Someone seemed to say that library searching was, and *should* be, moving away from specificity in general, with stemming at the metasearch level. "Give 'em *something*" seemed to be the theme here. Noerr clearly liked the idea that adding more words to a search would not penalize the searcher, and seemed to assert that this is true in Google (which I have not found to be the case).

How are results sorted? It depends.

Walt Crawford asked why metasearch engines did screen-scraping (a term Noerr despises, preferring "HTML parsing") against resources with robust Z39.50 servers. Todd Miller from Webfeat gave a partially responsive answer: "We do whatever the clients want…. Most clients don't ask for Z39.50" Paraphrasing, clients want to see results in the display format of the original resource, so HTML parsing is preferable.

Noerr noted that some Z39.50 implementations are good, while some are not; the metasearch engine he represents parses HTML *by preference*. Crawford later raised the issue of resource overhead; Noerr asserted that Z39.50 searches might just as well represent *more* overhead for the resource. (This raises an interesting point: Maybe part of Zeerex, the new method for explaining a resource, should be an assertion about the lowest overhead and preferred protocol for searching. It's certainly possible that HTML parsing represents lower overhead and use of resources for some databases than would Z39.50, although it seems unlikely for library vendors.)

Someone from JSTOR noted that most metasearch engines were commercial and wondered whether there were Open Source alternatives. A woman from Texas popped up to mention IndexData as a source for Open Source metasearch. She noted that the metasearch engine clearly prefers Z39.50 as a connection protocol.

Serials Solutions, now part of ProQuest, is working on its own metasearch engine. Their rep noted, and several other vendor reps agreed, that "connectors [to resources] are tough."

There was some discussion of relevance rankings, one of the great mysteries of info retrieval. Someone asked whether any sort of "popularity" measure was plausible for relevance within bibliographic databases. RedLightGreen uses number of holdings libraries as *part* of its relevance algorithm and so does WorldCat.

Discussion included the possibility of using circulation count as part of relevance, at which point the problems with popularity equaling relevance emerged: It penalizes newer items, reference books, and the most unique items, which may be the most relevant.

Masthead

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