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### Wired: What We've Learned About Courtroom Technology

Fredric I. Lederer

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*Joe, you know that I haven't personally tried a case since Stanhope in 2004, where we used technology heavily. Now I'm taking the Tanning case. What should I tool up for?*

*Actually, boss, there haven't been too many changes, mostly refinements. Most of us are using presentation technology more and more. When we can get it, realtime court reporting gives us an edge in cross-examination. Legally, the evidentiary rules haven't changed but Tanning has some metadata evidence issues that you'll have to work on. The remote witness from Switzerland will raise confrontation questions. And, the judge is nearly blind, so you'll be working in a courtroom with assistive tech. Oh, and remember to see Chris about creating a victim impact multimedia presentation.*

*So . . . no problems?*

*I didn't say that! The technology stuff is only a new set of tools. If you can't use them well, though, you're in trouble, and some of us have been burned by not taking that seriously. Be sure to set aside plenty of practice time.*

# WIRED

**What We've Learned About Courtroom Technology**

By Fredric I. Lederer

McGlothlin Courtroom at William & Mary Law School

Courtroom technology now is a fundamental aspect of trial practice for many lawyers. Both to encourage use of technology and to even the playing field between parties, an ever increasing number of courtrooms are being equipped with at least the ability to electronically display evidentiary and other images to judge and jury. Technology use is widespread. Whether we focus on administrative law, where Social Security disability hearings use computer technology to retrieve documents from the electronic case file and video conferencing for remote participants, or the high technology war crimes trials in the courtrooms of the Department of Defense's Office of Military Commissions (OMC), the increasing importance of courtroom technology is apparent. Indeed, the high technology OMC courtrooms exist because OMC wished to ensure that trial participants would have the same technological options that they would find in a well-equipped U.S. district court courtroom.

In 2004, I addressed the topic of technology in the courts in two articles: "Courtroom Technology: For Trial Lawyers the Future Is Now, in *Criminal Justice* magazine's spring issue (see page 14) and the comprehensive review "The Potential Use of Courtroom Technology in Major Terrorism Cases" that appeared in the *William & Mary Bill of Rights Journal* (see volume 12, page 887). Given that five years have passed since those articles were published, a relook and update is appropriate.

Traditionally, the systemic goal has been to make fact finding more accurate while hopefully increasing efficiency and decreasing cost. Lawyers, of course, have wanted to increase their chances of winning. The continuing move to evidence presentation technology at trial suggests that lawyers find courtroom technology to be useful and anecdotal evidence confirms that some lawyers find it to be of great value. A new factor is now entering the picture, however—the demographics of an aging national population. This will sharply increase the number of people with court and courtroom contact who will have special needs. The age of courtroom assistive technology is dawning and will blossom along with presentation and other technologies.

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## The Courtrooms

The 2004 *Criminal Justice* article reported the results of a 2002 survey by the Administrative Office of the United States Courts that showed that about one-quarter of federal district courtrooms were then equipped to display evidence and visual images during openings and closings: "Of 1,366 United States district court courtrooms, for example, 363 have permanently installed laptop computer wiring and 370 have some form of non-projector (i.e., computer monitor) displays for the jury" citing Elizabeth C. Wiggins, Meghan A. Dunn, and George Cort, *Federal Judicial Center Survey on Courtroom Technology* 8 (Federal Judicial Center, draft edition, August 2003). We have no more current data, although we have been told by one Department of Justice official that he estimated that at least 95 percent of federal trial courtrooms are high-tech. It is our experience that courts continue to renovate existing courtrooms and to build new ones that are technologically equipped. Although the basic types of courtroom technology that were discussed in the 2004 article, and which are touched upon below, remain largely unchanged, massive price drops in equipment costs and relative stabilization in software development have made technology substantially more affordable. Concurrently, the development of new consumer electronics standards, such as HDMI (High-Definition Multimedia Interface), threaten to make obsolete much of the hardware currently installed in courtrooms and law firm practice facilities.

Enhanced wireless connectivity promises cheaper courtroom installations *if* courts decide that wireless is compatible with security concerns. Discussions between Center for Legal and Court Technology (CLCT) personnel and judges and court administrators indicate that courts are beginning to consider some wireless connections to be acceptable, but some judges mistrust all wireless technology.

## Presentation Technology

Presentation technology refers to the use at trial of technology primarily used to help present opening statements, evidence, and closing arguments. Presentation technology is the "killer application" of courtroom technology. Through such technology, lawyers present visual images, sometimes accompanied by audio. Ordinarily, lawyers originate their presentations either through use of document cameras (television cameras that transmit images of physical objects, including documents) or, more likely, notebook computers. Although most courtrooms still have VCRs and DVD players for recorded video, increasingly counsel are storing all of their material in their computers, including animations.

The judge, opposing counsel, and witness see images on flat screen monitors. Jurors may view them on large projection screens, flat screen monitors, or, sometimes, portable

large screens such as a SMARTBoard (which permit witness or counsel annotation), or, rarely, one or more large television monitors. Where traditional trial practice emphasizes oral testimony and openings and closing arguments, technology-augmented trial advocacy tends to emphasize the presentation of visual images, which can change the fundamental nature of trial practice for lawyers. The move to visual presentation is dictated not only by trial tactics but also by the growing uses of digital technology in the modern world.

As the boom in electronic discovery and data seizures demonstrates, nearly all documents are now created by computer, and nearly all photographs are digital. Further, cell phone cameras seem to guarantee evidentiary images of nearly every interesting incident. Given the nature and quantity of digital evidence, it makes sense to present the evidence in its native visual form. In some circumstances, it may be critical to do so. Counsel, for example, who need to show where the numbers in an electronic spreadsheet came from, likely will need to visually show the equations that are part of the spreadsheet and the links to underlying data.

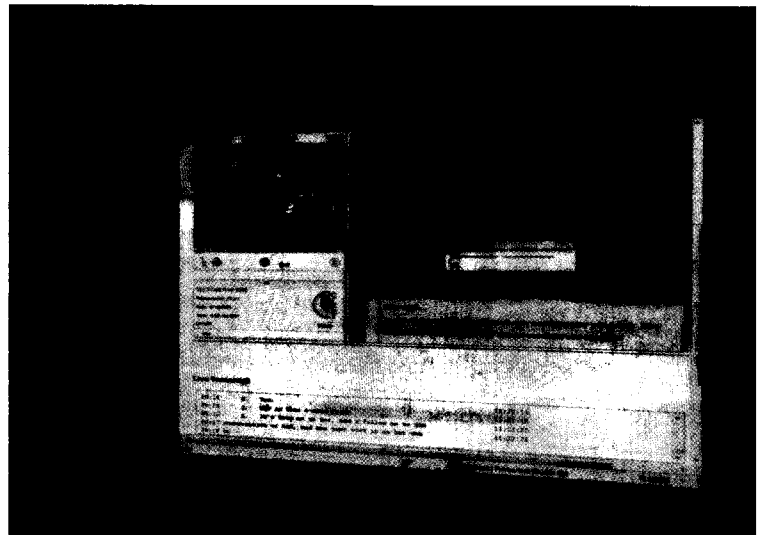
Lawyers are using a wide variety of software for courtroom display. This includes word processing programs, Adobe Acrobat or its equivalent, PowerPoint and similar slide programs, and high-end software to display the digital images on the computer. PowerPoint slide presentations for closing argument are clearly the favorite of some trial lawyers. Meanwhile, specialized trial software such as Trial Director and Sanction provide amazing flexibility at trial, particularly in allowing counsel to annotate images through various forms of emphasis. Interestingly, "trial" software increasingly bolsters its pretrial components, and pretrial software, such as CaseMap, is growing into trial presentation software.

In civil practice, a key technology is the ability to present recorded audio-video depositions that couple the image of the deponent with the associated audio and scrolling transcript text. In criminal cases, where depositions are rare in most jurisdictions, the same technology can be used to present confession evidence if the interrogation has been recorded. A special situation is presented when counsel need to present evidence of foreign language intercepts. CLCT spent a year experimenting with how best to present sizable amounts of recorded foreign language intercepts to jurors. Ultimately, we concluded that the best of a number of less-than-ideal methods was to borrow from the multimedia deposition technology. While playing the recorded native language to the jurors over the courtroom speakers so that they could hear the original voice tones, we scrolled the English text interpretation on the jury monitors in front of the jurors. Although admissibility would depend on whether the interpretation itself is admissible, we discovered a different problem. In the usual multimedia

deposition or interrogation, the text is synchronized with the recorded audio. Because foreign languages and English usually have different grammatical structures, full synchronization can be difficult or impossible. And we learned early on in our experiments that if jurors detected that the English text interpretation came at a different time than the spoken word, which happens when they hear a name or English word, they refused to believe the accuracy of the interpretation. We believe that this can be cured by calling an expert to explain how the multimedia intercept presentation was constructed and why perfect synchronization is impossible. However, we have not had an opportunity to empirically test that conclusion.

### Practical Concerns

Despite the fact that many lawyers now have firsthand experience with presentation technology and technology-augmented trials, there is still too much that we simply

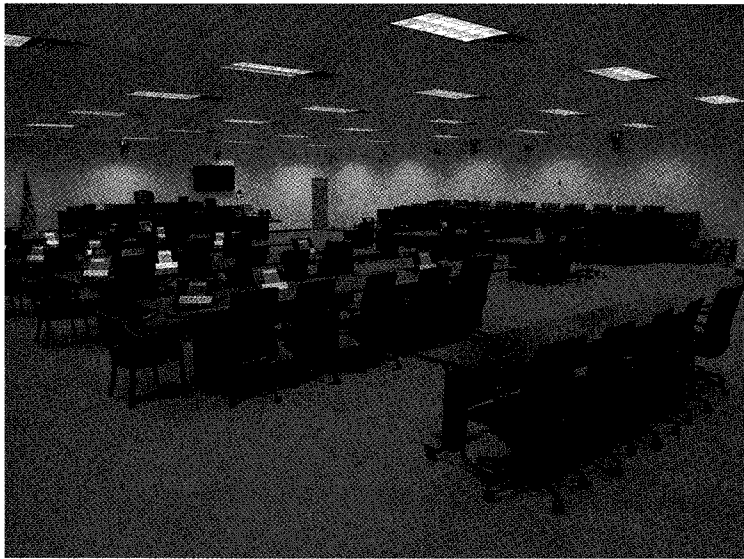


A multimedia court record displayed on a plasma screen.

don't know about how people, especially our fact finders, judge, or jury, react to electronic display and everything else that comes with courtroom technology. To be useful, empirical experiments must be carefully constructed, and such experiments are costly. Simply asking jurors what they think, however interesting, does not tell us how those jurors actually behave, and CLCT experience confirms that jurors can act entirely contrary to the preferences they explain in surveys. Counsel interested in reviewing some of what scholars have ascertained and surmised may wish to read Neil Feigenson and Christina Spiesel's *Law on Display: The Digital Transformation of Legal Persuasion and Judgment* (New York University Press 2009).

We have discovered some unforeseen consequences of electronic presentation, however.

Although speed of presentation is one of the reasons



OMC's Guantanamo Courtroom

that courts favor the electronic presentation of evidence, moving too quickly can be troublesome for jurors. Similarly, enlarging and emphasizing key data can hide parts of the document. CLCT empirical research has shown that the latter problems lead jurors to infer that counsel are intentionally hiding adverse evidence on the displayed document. We believe that this may be cured by a judicial preliminary instruction that jurors will be able to review the whole document during deliberations, but we have not been able to test that assumption.

Image display can shift the attention of the fact finder to the image and away from the lawyer or witness. Although this is not necessarily a problem, depending on courtroom design and display monitor placement, it can deprive a juror of witness demeanor evidence and deprive counsel of the visual feedback that comes from eye contact with judge and jurors. And, of course, technology overkill can be both distracting and annoying to the fact finder.

On a practical level, the tendency in many courts is for counsel to display material from the podium or lectern, or to have an assistant or vendor elsewhere in the courtroom to do so. Depending on the software used, however, if permitted to move around the courtroom, counsel can use a remote control to personally conduct the presentation. When a large projection screen is used, some remote controls allow counsel to annotate and even write while away from the podium. If connected to the courtroom display system, likely by wireless, counsel may use a tablet PC for presentation and full annotation.

Training remains the single largest obstacle in the use of courtroom technology. Even if counsel uses assistants or vendors to actually run the equipment, a lawyer must have sufficient personal understanding of the technology

to know what can be done with it, any limitations, and how difficult and costly it may be to execute. As CLCT has discovered in our specialized technology-augmented trial practice lawyer courses, hands-on instruction is critical. Paralegal instruction is also important if counsel wish proper pretrial and trial support. CLCT trains the defense counsel, prosecutors, and court staff for the Office of Military Commission trials. We have found it to be highly effective to have paralegals attend our two-day lawyer training so that the paralegals know what will be expected of them and then to continue just with the paralegals for an additional two days of specialized training.

Although courts would not seem to have any duty to supply courtroom technology, when they choose to do so, the nature of any accompanying duties is unclear. Similarly, although lawyers may not have a duty to use presentation technology, one could argue that the basic duty of competence would mandate competent use, but what other duties may exist? These matters are dealt with by the Courtroom 21 Court Affiliates Protocols for the Use by Lawyers of Courtroom Technology, see <http://www.legaltechcenter.net/publications/whitepapers/protocols.pdf>, a form of best practices agreed upon by the Courtroom 21 Court Affiliates, comprised of state, federal, and Canadian courts that work together with CLCT in the area of courtroom technology. Interestingly, when the protocols were written and adopted, all participating judges agreed that if counsel suffered a technical failure, it is their responsibility to resolve it or proceed without technology—even if the fault lies in the court's own equipment. Given the difficulty in diagnosing some technical problems and what seems to be a tendency by lawyers to ascribe their own mistakes to the court, this is a reasonable, if sobering, practice direction.

## Evidence Issues

The use of presentation technologies ordinarily does not present unique evidentiary or procedural concerns, although the use of technology seems to create special concerns in the minds of some lawyers or judges.

Because much of technology-augmented evidence presentation involves showing images of evidence, best evidence objections are sometimes raised. When physical documentary evidence has been received and is only displayed electronically, the best evidence rule does not come into play. It is, after all, the underlying document that is in evidence. In the more usual case, counsel offers into evidence images that show either copies of material that began in digital form or that are scanned images of paper originals. Although this does raise best evidence issues, under the Federal Rules of Evidence at least the image is likely to either count as an original (Fed. R. Evid. 1001(3)) or a duplicate (Fed. R. Evid. 1001(4)) and not to present any evidentiary issue. (See Fed. R. Evid. 1002; 1003.)

Electronic images are potentially subject to manipulation or fabrication. As a result, some lawyers and judges appear to think that digital evidence must be subject to special authentication requirements. Although jurors used to “correcting” their digital camera images indeed may have significant doubts about digital photographs in particular, the normal evidentiary rules, however imperfect, apply to authentication of digital evidence. In most normal circumstances, this means that a “witness with knowledge” will suffice. (See Fed. R. Evid. 901(b)(1).) There is one major potential exception to the easy authentication we customarily use—metadata.

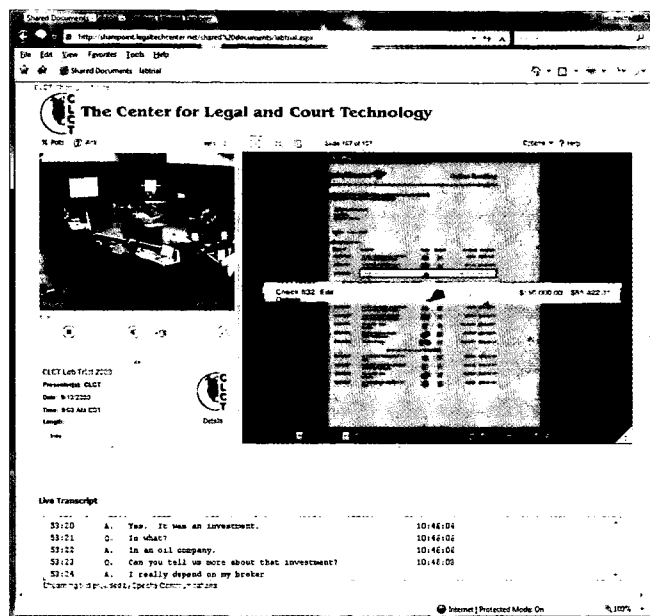
Sometimes defined as “data about data,” the U.S. District Court for the District of Maryland has opined in its Suggested Protocol for Discovery of Electronically Stored Information (ESI) that

“Meta-Data” means: (i) information embedded in a Native File that is not ordinarily viewable or printable from the application that generated, edited, or modified such Native File; and (ii) information generated automatically by the operation of a computer or other information technology system when a Native File is created, modified, transmitted, deleted or otherwise manipulated by a user of such system.

(Available at <http://www.mdd.uscourts.gov/news/news/ESIProtocol.pdf> (last accessed March 9, 2009).)

Metadata include electronic information that describes the nature of computer files, including facts such as its size, when it was last accessed, and those who accessed it. Metadata include spreadsheet formulae. Notably, these data are invisible to the naked eye. Accordingly, visual authentication of a paper document by a “witness with knowledge” under Federal Rule of Evidence 901(b) is insufficient if one needs to use the metadata. This not only complicates authentication but also drives the use of courtroom technology so that the witness can show why this particular version of what may be multiple and apparently identical electronic copies of a document is the correct one. Fabrication of computer evidence is of increasing concern. CLCT will devote its March 2010 experimental Laboratory Trial, to issues related to expert forensic testimony concerning alleged fabrication of computer evidence in a federal jury trial context.

And, of course, all the usual issues of unfair prejudice apply to an environment where we increasingly present high production digital images. (See, e.g., Vesna Jaksic, ‘Victim videos’ grow—but still controversial, NAT’L L.J., Dec. 22, 2008, at 6, col. 1.) It may be worth noting that in a 1995 experiment, CLCT discovered that attempting to visually “load” an opening statement, so that jurors might be sympathetic to the plaintiff, backfired badly when the



A multimedia court record on a plasma screen displays bank records as well as a live transcript.

jurors recognized the effort for what it was and became angry over what they thought was an unfair attempt to bias them. Even when evidence, opening statement, or closing argument, is unobjectionable legally, it may have adverse consequences with the fact finder.

## Remote Appearances

We have long been supporters of the use of videoconferencing for remote appearances of judge, counsel, and witnesses, especially in administrative and civil hearings. Years ago, CLCT-controlled empirical experiments supported the conclusion that jurors reach the same verdict with remote expert testimony as they do if the same testimony is given in the courtroom, at least when the remote witness is life-size, located behind the witness stand, and is subject to cross-examination under oath. There are, of course, those who do not believe that remote witness appearances provide adequate demeanor evidence or that the technology affects either the testimony itself or the fact finder’s perception of it. (See generally *Developments in the Law Access to Courts*, 122 HARV. L. REV. 1151, 1181-88 (2009).) Pending further experimental work, we believe that appropriate technology is the key to ensuring that remote appearances are the same as in-court ones.

Videoconferencing technology has improved immensely since its origins. New high definition videoconferencing from companies such as Polycom and Tandberg potentially eliminate the judicial complaint of, “I can’t see whether the witness is sweating on the monitor.” Cisco telepresence technology borders on science fiction in its ability to almost replicate “being there.”

Whether remote testimony is lawful depends both on how it works (including whether demeanor evidence and the like is properly conveyed) and the impact of statute and state and federal constitutions. Remote *defense* testimony does not pose confrontation problems, of course. We have heard, I might add, an anecdotal report of a major remote defense witness in a federal drug case being successfully impeached by an assistant U.S. attorney in the trial courtroom. It is remote prosecution testimony that presents the major confrontation challenge.

Although the seminal case remains *State v. Harrell*, 709 So. 2d 1364 (Fla.), *cert. denied*, 525 U.S. 903 (1998), the Court of Appeals for the Eleventh Circuit has held en banc that remote prosecution testimony violates the confrontation clause. (*United States v. Yates*, 438 F.3d 1307 (11th Cir. 2006).) Yet, subsequently, in a national security case involving a remote deposition, the Fourth Circuit held that the confrontation clause had not been violated. (*United States v. Abu Ali*, 528 F.3d 210 (4th Cir. 2008), *cert. denied*, 2009 U.S. LEXIS 1443 (U.S. February 23, 2009).)

Although we consider personal computer-originated remote testimony undesirable in court cases due to its relatively low video quality, we have been successful experimentally in using inexpensive Internet-based computer audio-video communications for remote motion practice. As discussed below, we have also been successful experimentally in using the same technology to permit elderly witnesses who cannot travel to court to testify remotely by computer.

### Avoiding Sidebars

In jury trials, the need to discuss matters outside the presence of the jury leads either to jury excusals or sidebars in which everyone hopes that the jurors can't and won't listen. CLCT has validated the use of typed communications via special keyboards that allow counsel and the judge to, in effect, text evidentiary and procedural requests and arguments, with a master copy being made part of the court record.

### "Court Record"

The traditional view of the court record is that it refers to the transcript of the court proceedings that is used primarily for appellate purposes. Although the court reporter could "read back" key portions of the proceedings when disputed, absent daily copy, the primary purpose of the court record was for appeal. Today's high technology court records solutions provide new ways of preparing the traditional court record, and digital recording of audio or audio-video are increasingly popular for this purpose.

However, although digital audio or audio-video re-

cording could theoretically be employed to electronically provide a near realtime court record, at present that is primarily within the province of stenographic and voice writer court reporters who can supply a rough draft of the proceedings as they occur (thus "realtime") to judge, counsel, and, when permitted, the media. Where equipped with their own computers and software such as Livenote, counsel can capture the transcript and make private annotations on it. This can be invaluable for cross-examination, closing argument, and preparation of jury instructions. If the court permits an Internet connection, realtime can be sent to associates in a war room or to experts retained for instant advice with reply by e-mail or instant messaging.

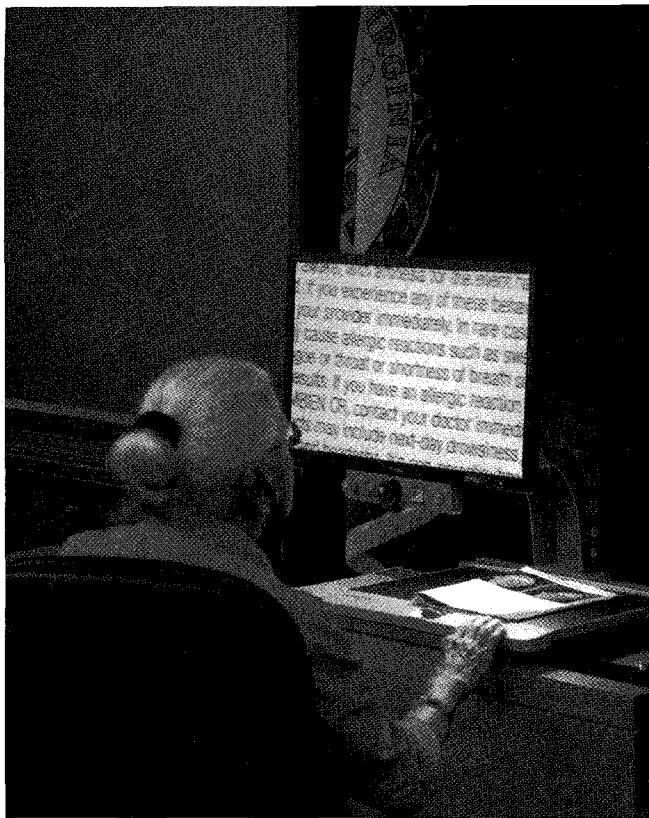
Although realtime transcription is a wonderful trial tool, it requires the assistance of realtime reporters. CLCT experiments in 2008 confirmed the ability to use remote court reporters who can, via videoconferencing, take the record remotely and who can, via a return audio link, even advise the judge and counsel of any problem in hearing the proceedings. Meanwhile, the digital text appears on the judge's and lawyer's monitors.

Norab Systems has announced a beta version of a partially automated form of realtime capture and transcription. Should this approach succeed, it may make realtime available to many more lawyers throughout the United States at substantially cheaper costs than apply at present.

Although the focus has been on preserving what is said in courtroom proceedings, the court record must also include the exhibits that have been proffered and received. This presents a special problem for technology-augmented trial practice. Not only is much of the evidence electronic in nature, but it is frequently annotated on the fly by witness or counsel. It is now possible to electronically preserve digital images, however introduced into a courtroom display system. CLCT has confirmed this approach and installed such a system in the Guantanamo Bay courtrooms. At present, this allows a court reporter to capture any single still image and, if necessary, to later redisplay it. The present system cannot handle multipage exhibits or moving video. Copies of these must be directly submitted by counsel to the court reporter.

### Privacy

Any discussion of courtroom presentation systems and technology-based court record systems ought to consider their privacy implications. (*See generally* Fredric I. Lederer & Rebecca Hulse, *Impractically Obscure? Privacy and Courtroom Proceedings in Light of Webcasting and Other New Technologies*, LAW/TECHNOLOGY, 3rd Quarter 2008 at 10 (World Jurist Association).) To the degree that court proceedings are now accessible outside the courthouse via



Juror with macular degeneration reads paper evidence via large-type display device.

technology, what traditionally was functionally private can now be quite public. This can occur via an Internet-accessible court transcript or Webcasting. Indeed, CLCT provides, during its experimental Laboratory Trials, Web-accessible audio and video of the proceedings, complete with the realtime transcript and images of the evidence itself. How likely is this type of access?

Complete court transcripts have sometimes been made available on the Internet. Courtroom View Network Live (*see* [courtroomview.com](http://courtroomview.com)) provides live Webcasting of trials, but only to its subscribers. Recently, however, trials have been reported live by Twitter. (*See, e.g.,* Roxanna Hegeman, *Twitter boosts public access to federal courtrooms*, WASH. POST, March 6, 2009, available at [http://www.washingtonpost.com/wp-dyn/content/article/2009/03/06/AR2009030600287.html?nav=rss\\_nation/special](http://www.washingtonpost.com/wp-dyn/content/article/2009/03/06/AR2009030600287.html?nav=rss_nation/special) (accessed March 8, 2009) (“Sylvester has been using Twitter for a year to cover hearings and trials in state courts, but the racketeering trial of six Crips gang defendants that he’s covering online this week is his first in federal court.”).) Such reporting makes what happens at trial public worldwide and for as long as the Internet lasts. It is unclear that the Framers’ conception of “public” extended quite so far. At the least, counsel may wish to carefully consider the information they wish to solicit from witnesses when such coverage exists.

Although public embarrassment might seem the usual risk of exposure of testimony (and argument) by the Internet, it is clear that in some cases the lives and health of witnesses could be at risk. So too is identity theft.

A CLCT survey conducted with the gracious help of many court reporters around the country makes it clear that judges, especially in criminal cases, are demanding personal identity data, such as Social Security numbers, in open court. Not only does this make identity theft possible simply because courtroom visitors may hear that information—or see it on courtroom monitors—but if the proceedings or data will be available on the Internet, the risks become apparent. Counsel should take great care not to solicit in open court data that may lead to identity theft or other crimes. (*Cf.* Fed. R. Crim. P. 49.1(a); Fed. R. Civ. P. 5.2 (a) (both providing for redaction of personal data from filed documents).)

### Assistive Technology: Helping Those With Special Needs

A significant number of people have difficulty in hearing, seeing, and moving. Some of those people may need court services, such as probate, or themselves be part of the court staff. However, they may also be court hearing participants and courtroom visitors.

Ensuring access to the courts for all is clearly important. Providing access to those with special needs will be even more compelling as the Baby Boomers age and discover new bodily constraints. In 2006, CLCT conducted an experimental Laboratory Trial that is believed to have been the world’s most sophisticated assistive technology trial. That was followed in 2008 by a case in which most participants were in their eighties, a number of whom had disabilities. In the 2006 case we had a nearly blind judge, a witness who could neither hear nor speak, a blind witness, a witness and counsel in wheelchairs, a counsel with Gulf War syndrome and constrained mobility, and jurors who were deaf, hard of hearing, or mobility constrained.

Assistive technology is extraordinary in its ability to provide meaningful access to justice. Brief samples may be illustrative. During our 2006 case, we supplied our judge with a scanner that scanned counsel submissions and read them to him. Because there are many matters that ordinarily would be visually observed in a proceeding, we supplied a “court explicator” who provided the judge with an ongoing electronically communicated description of everything that he could not personally observe, with the audio going as well to counsel and preserved for the court record (earning CLCT a national award from the American Foundation for the Blind). For our witness who could not hear or speak we provided, via videoconferencing, a remote American Sign Language interpreter. For our hard of hearing jurors we provided our court reporter’s realtime text transcript, both in court and during deliberations. For a wheelchair-using counsel, we supplied a special Litigators Podium of CLCT design that she could roll into and potentially



rotate, equipped with all necessary technology. Our veteran counsel with braces was able to make closing argument to the jury standing on a Segway transporter.

In our 2008 Laboratory Trial we supplied a juror with macular degeneration with a device that permitted her to take paper evidence and to read it via major enlargements. For an elderly witness who had to testify from her retirement home apartment, we supplied a laptop computer with videoconferencing capabilities that allowed highly successful two-way remote testimony.

In light of the special importance of those with needs in this area, CLCT, in partnership with the American Foundation for the Blind, has created the Accessible Courts Initiative (ACI). With funding from the NEC Foundation of America we are now working to make our courts and court proceedings accessible to all. (See ACI at CLCT or at [www.accessiblecourts.net](http://www.accessiblecourts.net).)

## Conclusion

Because courtroom technology is “technology,” we can expect it to continue to change and, hopefully, improve. Indeed, the pace of change is demonstrated by the fact that in 2009 CLCT replaced its entire courtroom with a new one, complete with new millwork, a new technology infrastructure, upgraded hardware, and an experimental assistive technology station in our jury box flexible enough to accommodate many different special needs.

Technological change is constant. Just as our law changes, so too do our technological tools. Interestingly, some of the most fascinating developments that could have been expected have not as yet really come to court. CLCT experiments with holographic evidence and immersive virtual reality showed their possibilities years ago. Although they are still available for courtroom use, they have not yet “arrived.” Likely, we are waiting for cost-effective advances to make them easier and cheaper. That some changes have not as yet arrived should not distract us from the fact that many have and that they provide us with valuable tools to better serve our clients.

Granted, technology-based evidence presentation, remote testimony, multimedia court records, and assistive technology perhaps still seem like science fiction to many lawyers. Yet, they are only *tools*. Just as electronic research complements poring through our trusty law books, courtroom technology provides additional tools for better representing our clients in court.

As tools, we must be able to use them wisely. To make effective use of the technologies available to us today and those to come, we must know what can be done, we must have the training to use them properly and well, and, yes, we must sometimes have the imagination, creativity, and courage to use them to “boldly go where no one has gone before.” ■

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| 2. Free or Nominal Rate In-County Copies Included on PS Form 3541   | 0  | 0   |
| 3. Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g. First-Class Mail)   | 0  | 0   |
| 4. Free or Nominal Rate Distribution Outside the Mail (Carriers or other means)   | 0  | 0   |
| e. Total Free or Nominal Rate Distribution (Sum of 15d (1), (2), (3) and (4))   | 4953   | 3777  |
| f. Total Distribution (Sum of 15c and 15e)  | 10370  | 10353   |
| g. Copies not Distributed (See Instructions to Publishers #4 (page #3))   | 1481   | 1439  |
| h. Total (Sum of 15f and g)   | 11851  | 11792   |
| i. Percent Paid (15c divided by 15f times 100)  | 52%  | 64%   |
16. Publication of Statement of Ownership. If the publication is a general publication, publication of this statement is required. Will be printed on Winter 2010
  17. I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties). (Signed) Bryan Kay, Director, ABA Publishing 9/30/2009.