

An Introduction To Technologically Augmented Litigation

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As trial looms on the horizon, counsel seeks to assure victory. Whether the goal is successful settlement or victory at trial, the wise lawyer routinely seeks to gain every ethical advantage possible. Increasingly, technology may well be not just an advantage but a deciding factor.

The rate of technological change is staggering. In only a relatively few years we have gone from word processing to CD-Rom-based legal research to computer-based courtroom presentation systems to in-courtroom remote video witness testimony, the most recent potential litigation option. Electronic filing is in the experimental stage, and Australia has reported the first court order served by Internet. Given the number of possibilities available, it would not be surprising if some lawyers found it difficult to adequately evaluate their technological options. Sometimes it truly is difficult to see "the forest for the trees." Accordingly, this article briefly reviews some of the varying technological options available to the litigator.

Pretrial Matters

Most lawyers are fully familiar with the concept of litigation support. In its usual sense, "litigation support" has primarily meant the imaging of case-related documents with concurrent creation of retrieval criteria. Retrieval can be based upon previously specified categories or "fields," such as "deposition" or "Alyssa Smith." Documents also can be scanned with optical character recognition and then be subject to content-oriented word searches similar to Lexis or WestLaw searches.⁽²⁾ Notwithstanding the often critical importance of litigation support of this type, the lawyer may wish to use other⁽³⁾ options as well.

Discovery

Discovery depositions are often a critical aspect of case investigation and case preparation. An ideal deposition provides counsel not only with raw information which can be read and electronically searched for comprehensive discovery purposes, but which also can be used persuasively at trial. To accomplish all of these goals, the wise deposing lawyer will use a court reporter who uses "CAT," Computer-Assisted-Transcription at the deposition. CAT which yields an electronically searchable computerized transcript in addition to the traditional paper transcript. At the same time, a contemporaneous

audio/video record should be made.⁽⁴⁾ In the event that the deposition is used at trial, whether on the merits or for impeachment, the more persuasive video deposition should be used. Further, there are an increasing number of firms, especially court reporting firms, which can create a unified CD-Rom disk containing the audio, video, *and* the computerized transcript. At trial, counsel can use a TV - particularly a large screen projection television - to show the videotaped deposition testimony as the synchronized transcript scrolls by.

The discovery process, formal and informal, can be complicated by witnesses who do not speak English. In the absence of adequate interpreters, AT&T's Language line can be used. LanguageLine can translate 140 languages, most without advance notice. By dialing Language line via a speaker phone, the deposition can be connected to an interpreter who will then supply consecutive translation.

Legal research

Most lawyers take computer-based legal research materials for granted. The use of notebook computers for CD-Rom-based legal research greatly extends the lawyer's ability to research, whether during travel or in court. The forthcoming change to digital video disk capacity likely will permit placing even the law of large states such as California and New York on one disk, greatly simplifying research during air flights. Because of inherent publication delays, CD-Rom research may not be sufficiently current in many cases. Counsel may update the CD-Roms via standard or cellular-based Lexis or WestLaw connection. Internet-based research holds great promise, but counsel should be careful not to use authority the reliability of which is open to question.

As courtrooms become equipped with computer monitors, counsel will be able to display legal authority, as well as their briefs, to judges to emphasize their points. Of course, the judge can also use this process should the court decide to inquire about apparent discrepancies between argument and legal text.⁽⁵⁾

Case preparation

Many counsel have used trial notebooks to structure their cases and to ensure that all critical matters are attended to in a timely and proper fashion. Computer based "trial notebooks" can be vastly superior to their traditional hardcopy counterparts because of their flexibility and potential use at trial. Unlike paper notebooks, a computerized notebook can cross-referenced in numerous ways and can be instantly altered to accommodate new evidence, new theories, or unanticipated adversarial moves. Although virtually any word processing program can be used to accomplish this goal, programs tailored for this purpose present incredible possibilities. Programs such as Trial Director, for example, store not only text material but also forms of visual material, whether video

clips, static clip art images, documents, charts, or photographs. An increasing number of technologies permit document conferencing across vast distances; the final result can be displayed in settlement conference or at trial.

Trial

Display of trial information

The ability to electronically display information can be critical for reasons of logistics, comprehension, and persuasion. In complex litigation involving large numbers of documents, timely retrieval and presentation of paper exhibits at trial can be at least awkward. According to anecdotal evidence, placing documents on computer disk with concomitant computer-based display to the fact finder has met with substantial judicial approval. Judges have reported that trials have moved more quickly and efficiently than trials with traditional evidence presentation. Courtroom 21 experimentation confirms this.

Although efficiency and time savings are important, the visual display at trial of information is also desirable because it can increase comprehension and persuasion. Counsel should consider the use of technologically based visual materials for the same reasons that lawyers have always used models, charts, graphs, photos, and similar material. It is apparent that visual materials can often successfully convey ideas and facts in a far more comprehensible and persuasive fashion than mere testimony or text. It is often said, for example, that although jurors only retain 15% of what they hear alone, they retain 85% of what they both hear and see. Limited Courtroom 21 experimentation indicates that jurors, *regardless of age*, prefer visually presented material. Technologically augmented litigation permits the use of *technologically presented* material. In addition to its role in improving comprehension and persuasive impact, electronic presentation permits the use of computer-prepared material, whether still images or sophisticated computer animations.

Counsel should seek to use visual material during opening, presentation of evidence, and closing. This material can be as simple as display of electronic slides as the type made possible by Corel Presentations or Microsoft's PowerPoint. Legally, the evidentiary and procedural constraints that may apply will depend upon the specific intended use for the displayed information. Counsel can expect the greatest freedom in the presentation of closing argument when the information need only constitute fair comment upon the evidence. Counsel should expect, however, that opponents will attempt to block particularly persuasive exhibits such as animations on the very grounds of that persuasive impact, arguing that the effect is "unduly prejudicial."

Logically, any decision on in-court display requires a decision on what to display, how best to display it, whether the judge will permit the display, and whether that display is pragmatically feasible in the given courtroom. In

practice, the overriding first question is what technology is realistically available for the litigator's use. This requires consideration of both "output" or display devices and "input" or originating sources.

Display devices constitutes the way the fact-finder, especially the jury, will view the material. In one form or another, this will include some variety of television, computer monitor,⁽⁶⁾ or combination thereof. In an ideal courtroom display environment such as Courtroom 21, counsel can choose from individual juror computer monitors (also functional as televisions), two large built-in television sets/monitors, a 40 inch SONY computer/monitor, or a 3M front projection TV able to display virtually any input.⁽⁷⁾ In most courtrooms, however, counsel will find no built-in equipment at all and must then consider what may be brought into the courtroom.

Assuming the need to display both television and computer output, likely the best and most economical compromise for many cases would be at least two large, perhaps 40 inch, computer monitors able to also function as televisions, positioned in front of the jury. Subject to the viewing angle, smaller units may also be required for judge, counsel, and, if necessary, the witness and court reporter. Because few judges are delighted with cables snaking around the courtroom, the smaller and neater the proposed installation, the better. Obviously, rental of a bright front projection system may be of substantial advantage in many cases. In document intensive cases in which judge and counsel will permit jurors to read documents at their own rate, individual monitors should be installed as part of a networked environment. Now available 14 inch LCD flat screens appear to be a good choice.

Although we are still in the infancy of trying to determine the type of court record necessary for high technology litigation, counsel who are electronically displaying evidence should particularly consider making an adequate recording of what is actually displayed for the fact-finder.

"Input," or the sources to be displayed, often will be contingent on the available output display media. Absent adequate scan converters, for example, computer output cannot be displayed on normal televisions.⁽⁸⁾ Potential input sources will include copystand-type television cameras such as DOAR Visual Communicators, VCR's and audio tape players,⁽⁹⁾ white boards such as the Microfield Graphics SoftBoard or Smart Technologies rear-projection touch/pen screen , and computer-originated material. The most basic - and important - display system is a document camera linked to a television. Counsel need only place a page, photo, book or whatever under the camera,⁽¹⁰⁾ and it appears on the TV. As the system can also project transparencies and even invert black and white for X-ray display, the use of this fully portable system should be obvious. Add-on technology permits counsel or witness to electronically write on the image by circling, for example, key text. Depending upon whether display monitors capable of handling computer outputs are available in the courtroom, computer-produced visuals can be displayed either directly or, when necessary, via transference to print media, slides, or

videotape. High quality computer animations are often displayed via videotape, although computer based control can be preferable.

When counsel need still images or charts, production can often be handled in-house via software such as CorelDraw and its counterparts. The same is also increasingly true of multi-media presentations. Most lawyers, however, lack the artistic and psychological background necessary to produce useful multi-media and ought to be hesitant to do-it-yourself even when office technology permits. Having thus suggested restraint, one must still note that the ability to create such presentations is increasingly available inexpensively. Notebook computers with large hard drives, especially coupled with soon to be cheaply available CD-Rom recorders, removes prior constraints due to limited disk storage.

At present, sophisticated, scientifically accurate, animations usually require the expertise of specialized firms such as FTI (Forensic Technologies International, Incorporated). An increasing number of media production firms are entering the legal market, and high quality visuals can often be produced by such firms. They may, however, lack in-house engineering or technical experts.

Technology advances occasionally present whole new forms of evidence. IPIX's new 360 electronic photographs ("photo bubbles") provide counsel with the unique ability to let jurors see everything visible from a given vantage point.

Rear projection displays that permit lawyers and witnesses to use special markers or even fingers to electronically "write" on computer or TV images provide an interactive form of information display. These systems, which can be as large as six feet diagonally, provide an interactive display which merges inputs and displayed output.

Many lawyers and judges have expressed concern that electronically based evidence can be easily altered electronically, presenting the risk of undetectable fabricated evidence. The evidentiary system is not really designed to catch intentional fabrications. The standard for authentication, whether common law or Federal Rule of Evidence Rule 901(a), places only minimal demands on evidentiary proponents laying foundations. Fabricated documents have been known to the legal system for millennia. If anything is truly new, it is that alterations theoretically now can be made in such an effective and invisible fashion as to produce extraordinarily persuasive, albeit false, visual evidence. When presenting electronically produced evidence, especially evidence that has been "augmented" or clarified by experts, opposing counsel should take great pains during discovery to learn the origins and treatment of the evidence.

In the "Unabomber" trial defense counsel moved to prohibit electronic display of evidence by the government, noting that electronic display would at least subtly change the appearance of the document to be displayed. That there is a visual difference between a physical original and an electronic image is clear. Whether that difference is important in a case is another matter entirely. If counsel is only showing textual content, and the actual color or surface of the

original document is not involved, the differential is irrelevant.

Remote testimony

Travel eats up a substantial amount of lawyer time and is the direct and indirect cause of much expense and delay. "Remote arraignments," two-way TV first appearances (and sometimes true arraignments) in criminal cases are increasingly commonplace in many states and are indicative of massive change to come. These popular and inexpensive procedures are laying the ground for the increasing use of inexpensive non-satellite digital video. "Video conferencing" can provide high quality court testimony at a coast-to-coast communications line cost of about \$ 36.00 per hour⁽¹¹⁾ using units such as Courtroom 21's Tandberg supplied six ISDN channel systems. Given the efficiencies of conducting depositions, settlement negotiations, court appearances, including motion argument, and even actual witness testimony, it is likely that television- based testimony will become an increasingly frequent occurrence in the lives of most lawyers in a few years. The technique has been used quite successfully in civil cases in Australia for over nine years now. Because it may be that many jurors will find television based live testimony especially credible,⁽¹²⁾ "viewcasted" testimony may have special importance for expert testimony in civil cases. This prediction is far from science fiction: the William & Mary School of Law last year completed five days of highly successful placement interviews using the video conferencing system in the Courtroom 21 judges' chambers.⁽¹³⁾ Videoconferencing soon becomes quite ordinary to the participants, and there is every reason to believe that as the technology's use continues to expand in corporate and government circles, it will be adopted by law firms and courts anxious to cut costs. Indeed on December 1, 1996, Federal Rule of Civil Procedure 43(a) was amended to permit remote testimony in civil cases " for good cause shown in compelling circumstances and upon appropriate safeguards. . . ." Interestingly, limited 1997 experimentation by Courtroom 21 showed that jurors of all ages found live two-way remote testimony as good as (and no better than) in-court testimony. Evidentiary, procedural, and tactical changes will no doubt be necessary to adequately regulate and use the technology, but use it we certainly will.

Conclusion

Change is upon us, and the rate of change is likely to continue to accelerate. Lawyers who wish to win have little choice but to investigate the potential offensive and defensive options supplied by legal technology. Increasingly, for many cases, technology will not be an option but a necessity.



Courtroom 21 A Joint Project of the William & Mary School of Law

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Footnotes

1. Chancellor Professor of Law and Director, Courtroom 21, William & Mary School of Law. 1996& 1997 by Fredric I. Lederer; all rights reserved. The Courtroom 21 Project, includes in the McGlothlin Courtroom at William & Mary, "The Courtroom of the 21st Century Today," the world's most technologically advanced courtroom. A joint project of William & Mary and the National Center for State Courts, Courtroom 21 is an international demonstration and experimental project utilizing commercially available technology.
2. Large amounts of pre-existing documents usually require resort to specialized firms. Increasingly, however, lawyers can make their own on-going scanning and classifying arrangements using their own equipment and staff.
3. When a scanner scans or images a document the scanner takes the equivalent of an electronic photograph. Words are just part of the picture. For a computer to recognized the word images as words, a computer with proper software must use optical character recognition (OCR) to create a file in which the words are now identified and electronically searchable.
4. If a deposition is conducted via video conferencing technology, all one has to do is videotape the proceeding.
5. This procedure is actually being used by one court today.
6. 800x600 super VGA resolution seems the minimum requirement. Depending upon monitor size, 1024x768 may be preferable for detailed graphics. Even 40 inch monitors likely will not display high resolution images large enough to be read at a distance from the jury. Counsel wishing jurors to read numerous documents on screen should consider use of individual jury monitors.
7. Ideally, the projection system should be bright enough that the courtroom lights need not be turned off.

8. Basic converters are inexpensive and readily available. High resolution converters for 1024x768 or higher resolution are more problematical, and the transition to television may not be as desirable as in the case of lesser resolutions.

9. Counsel ordinarily wish to use visual material, often including sound. On occasion, of course, purely audio material may be used in which case only loudspeakers or earphones will be needed.

10. The DOAR Disk Partner permits the litigator to place evidence on disk in advance and simply use the disk system for display. The same technology permits preserving the televised image on disk for the appellate record.

11. Tariff quoted by EXECUTONE Information Systems, Inc., then Courtroom 21's video provider. This doesn't take into account the necessary hardware costs which can be amortized over the life of the equipment. PC based video conferencing is not yet adequate for trial use. It may, however, suffice for counsel applications to the judge in chambers or for motion practice permitting counsel to appear from one's desk.

12. There is no evidence to support this - or for that matter, the opposite theory; immediate experimentation is needed.

13. Students were interviewed by firms in Denver, New York, Phoenix, Seattle, and Tampa.