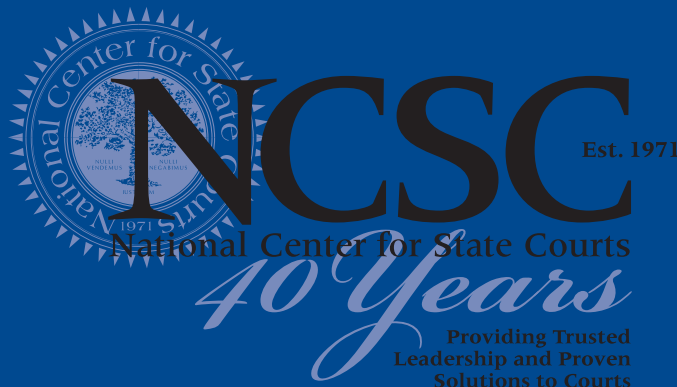


FUTURE
TRENDS IN
STATE COURTS

2011

Special Focus on Access to Justice



*The Evolution of a
High-Technology
Courtroom*

Hon. Herbert B. Dixon, Jr.

THE EVOLUTION OF A HIGH-TECHNOLOGY COURTROOM

Hon. Herbert B. Dixon, Jr.

Judge, Superior Court of the District of Columbia

The District of Columbia Courts are evaluating what works best in a high-tech courtroom for making presentations and instructing juries. The courts are also trying to determine whether presentation formats that seem most favored by jurors are in fact the most effective.

Over the last several years, interest in high-technology courtrooms has grown. Traditional litigators and judges whose skills were honed without the newfangled gadgets were not the fastest to embrace new technologies. As time passed, however, the population of old-school litigators dwindled and interest in litigating in high-technology courtrooms increased. I had the good fortune over the last two years to be involved with the design and construction of a high-technology courtroom and to be assigned to the courtroom and asked to promote use of the new technologies among the practitioners on my calendar.

Once the courtroom was in operation, I encouraged use of the courtroom's new technology at every opportunity. At the same time, the Research and Development Division of the D.C. Courts developed a survey to capture juror impressions concerning the use of technology during trials. At the end of each trial, I urged jurors to assist our evaluation efforts by completing the survey.

After several months operating this high-technology courtroom, including 11 serious and complex criminal jury trials, and survey responses from 141

94 percent of surveyed jurors agreed or strongly agreed "Overall, the use of technology in the courtroom improved my ability to serve as a juror in this case."

deliberating jurors and alternates, I am ready to share some observations about the evolving use and juror impressions of courtroom technology.

High-Technology Equipment in the Courtroom

Video Displays

There is fair debate concerning the preference for large monitors to which all eyes are directed versus smaller individual (or jointly shared) monitors installed in the jury box. Among counsel, the preference is for large monitors. The large monitors encourage more eye contact with the presenter until the jury's attention is directed to some aspect of the image on the monitor, whereas jurors with individual monitors often remain focused on their personal monitors rather than on the presenter. In the lawyers' view, there is a perceived loss of connection with the individual jurors.

In many technology-enabled courtrooms, images are projected on a screen by a liquid-crystal-display (LCD) projector. The equipment in my courtroom includes a 72" x 72" drop-down projection screen; a 5,500 lumen LCD projector; and, for jury and audience viewing, four 52-inch diagonal, high-definition flat-screen monitors. The LCD projector and screen provide an 85-inch diagonal image, which explains why the parties and I often prefer to project images of evidence on that screen for primary viewing. As is totally understandable, however, the projector image is larger and more easily seen, but the smaller monitor image is often superior in terms of sharpness and clarity. I believe that flat-screen monitors, with their superior image display and falling prices, offer the best hope for larger and more affordable video displays in technology-enhanced courtrooms.

Annotation Monitors

Annotation monitors allow witnesses to mark an exhibit with notations that can be preserved for later viewing. For example, the markings can show where a person was standing in an area shown in a particular picture or where a crucial event occurred on a particular piece of evidence, such as where a metal fracture occurred or where failed equipment was not properly aligned during manufacture or construction. Once the notations are made on the monitor, additional markings may be added to identify the witness responsible for the notations, all of which may be preserved by printing a color copy of the exhibit. When the next witness

97 percent of surveyed jurors agreed or strongly agreed that “Viewing the judge’s instructions on the monitors improved my understanding of the laws in the case and my responsibilities as a juror.”

is called, the original copy of the exhibit will be free of any markings that might influence that witness.

Witness Monitor

The witness stand should have its own monitor. This monitor should have the annotation feature that allows the witness to make marks electronically on the displayed image. A witness monitor also allows presentation of the evidence to the witness, not viewable by the jury, to elicit testimony concerning the authenticity and relevance of the exhibit. When the exhibit is moved into evidence, the exhibit then may be displayed on the other courtroom monitors for the jury.

Evidence Camera

An evidence camera is indispensable for a technology-ready courtroom. No other piece of equipment surpasses this item in its ability to encourage litigants to use technology during in-court proceedings. An evidence camera instantaneously converts a paper document or physical exhibit to an electronic image, with the ability to enlarge and reduce the image as needed. An evidence camera can enlarge, for example, a 4” x 6” photograph or the face of a wristwatch for all to see on the courtroom monitors or projection screen. A demonstration that often amazes courtroom observers is to see the back of a pre-2009 one-cent coin enlarged to an extent that shows not only the engraved Lincoln Memorial in significant detail, but also the engraved silhouette of Lincoln’s statue between the memorial’s two center columns.

Laptop Connections and Other Digital Input Locations

Because of the popularity of laptop computers for presenting evidence as digital images and sound, laptop inputs to the courtroom’s audio and image-display systems are a necessity. In my courtroom there are three such inputs, namely,

image and audio connections located at each of the two litigants’ tables and a third set of image and audio inputs at the speaker’s lectern. This configuration permits the two opposing sides each to have their individual input location and a spare input if another is needed. This is helpful if either or both inputs for the opposing parties should become disabled (which happened in my courtroom when some unauthorized person rearranged the furniture and snapped one of the fragile fiber-optic cables). Additionally, the judge’s computer on the bench may also transmit images and audio to the courtroom’s audio and image-display systems.

One cannot overlook that, instead of a PC-type device, a fair number of litigators use the Mac, iPad, and other Apple computers. My courtroom has the standard VGA PC connections for images and 3.5 mm connections for audio. There is an adaptor available for each Apple product, and it is probably a good idea to have these adaptors as standard equipment in the courtroom for those litigants who never considered that the courtroom’s audio and image-display systems might not be “Apple ready.”

Combo VCR/CD/DVD Player

The combo VCR/CD/DVD player was thought to be necessary equipment for a technology-ready courtroom, but the slow demise of tape media and increased popularity of laptop computers have diminished the use of such players. Although exhibits still occasionally surface that need legacy equipment, including cassette tapes, VHS tapes, and maybe even a Betamax tape, parties nearly always offer to play their audio and video exhibits from their laptop computers using the computer’s hard drive, a thumb drive, memory card, or the computer’s CD or DVD player. The flexibility of the laptop computer to use various storage media will render combo VCR/CD/DVD players obsolete.

Courtroom Printing and Electronic Storage of Exhibits

A color courtroom printer remains a staple of the technology-ready courtroom for printing images of exhibits on which witnesses have made electronic markings. In addition to printing copies of images and markings and other notations for review by the judge or jury during deliberations, paper copies are often needed to satisfy the primeval urge for paper backups just in case the electronic Xs and Os disappear into the ether.

97 percent of surveyed jurors agreed or strongly agreed “With the use of the courtroom technology, I could clearly see the evidence presented in the case.”

An interesting alternative is preserving exhibits and markings electronically and providing the jury a laptop computer, kiosk, or other device to scroll through all of the electronic exhibits. The arguments in favor of this alternative are that the resolution and clarity of the electronic image

are superior to the printed copy, the time delay (15 to 20 seconds or more—an interminable wait in the courtroom for the electronically marked exhibits to print) is obviated, and electronically preserved exhibits are immediately ready for input into the court’s electronic records system without scanning. Obviously, eliminating any need to make an electronic image of the paper copy saves time and avoids a further decrease in image quality.

Integrated Controller

The ability to control the source of images and sound into the courtroom’s video and audio system are handled through a unified controller that is integrated with the courtroom system. Most often, the controller is a touch screen that allows the judge or courtroom clerk to direct the source of the images displayed and sound heard on the courtroom’s video-display and sound systems. While it is possible to allow counsel to determine when a video is displayed or audio is played, it is normally best to leave “traffic cop” control in the hands of the judge or courtroom clerk trained to perform this job. If the judge is not interested in performing this function, the courtroom clerk must have the training to perform this job. Whether this function is performed by the judge or courtroom clerk is likely to be influenced by tradition and the judge’s preference. In my case, my courtroom clerk and I have duplicate controls that allow either of us to determine the source of the video and audio to be played on the courtroom’s system. The standard configuration now allows the controller to direct the image and sound from any source to a selected monitor or monitors. And, of course, the controller must have a “kill switch” that allows, in case Murphy’s Law is invoked, instantaneous termination of any image or sound. My “kill switch” is euphemistically labeled with the much milder term “clear system.”

The advanced features of an integrated controller system allow different images from separate sources to be displayed simultaneously, for example, showing an image from the evidence camera on monitor 1 while at the same time showing on monitor 2 a video from the prosecutor’s laptop; the image of a still photograph from the defense attorney’s laptop on monitor 3; a limiting instruction in PowerPoint from the judge’s computer on monitor 4; and so on. However, the knowledge of the system and mental dexterity that the judge or courtroom clerk need to operate such a system effectively and efficiently might be a little too much to ask under normal circumstances. Indeed, the complexities of such a system may result in (1) the advanced features being rarely used or (2) discouraging use of the courtroom’s technology altogether. For this reason, the more simplified configuration discussed earlier is the most practical design until the use of courtroom technology becomes more the rule than the exception.

86 percent of surveyed jurors agreed or strongly agreed that “When the attorneys used the technology to display exhibits on monitors and play audio on the courtroom’s main speakers, I better understood the evidence presented in the case.”

Wireless Installation

Once upon a time, installation of the controller system for displaying images from various courtroom sources required removing and raising the existing floor to install wire cables, fiber-optic cables, and other wires to connect the various image and sound sources (counsel’s laptop, the evidence camera, etc.). That effort in my assigned courtroom resulted in a three-inch higher floor, calling for a pathway from the audience section to the well of the court that is slightly inclined over a three-foot length. As one might have expected, I have seen numerous folks stumble when they did not notice the incline as they entered the well. Now, with vast improvement in wireless technology, retrofitting a courtroom to accommodate the integrated system that controls the connection between sources and the courtroom’s video and audio system does not require extensive and expensive removal and raising of the floor to accommodate cables.

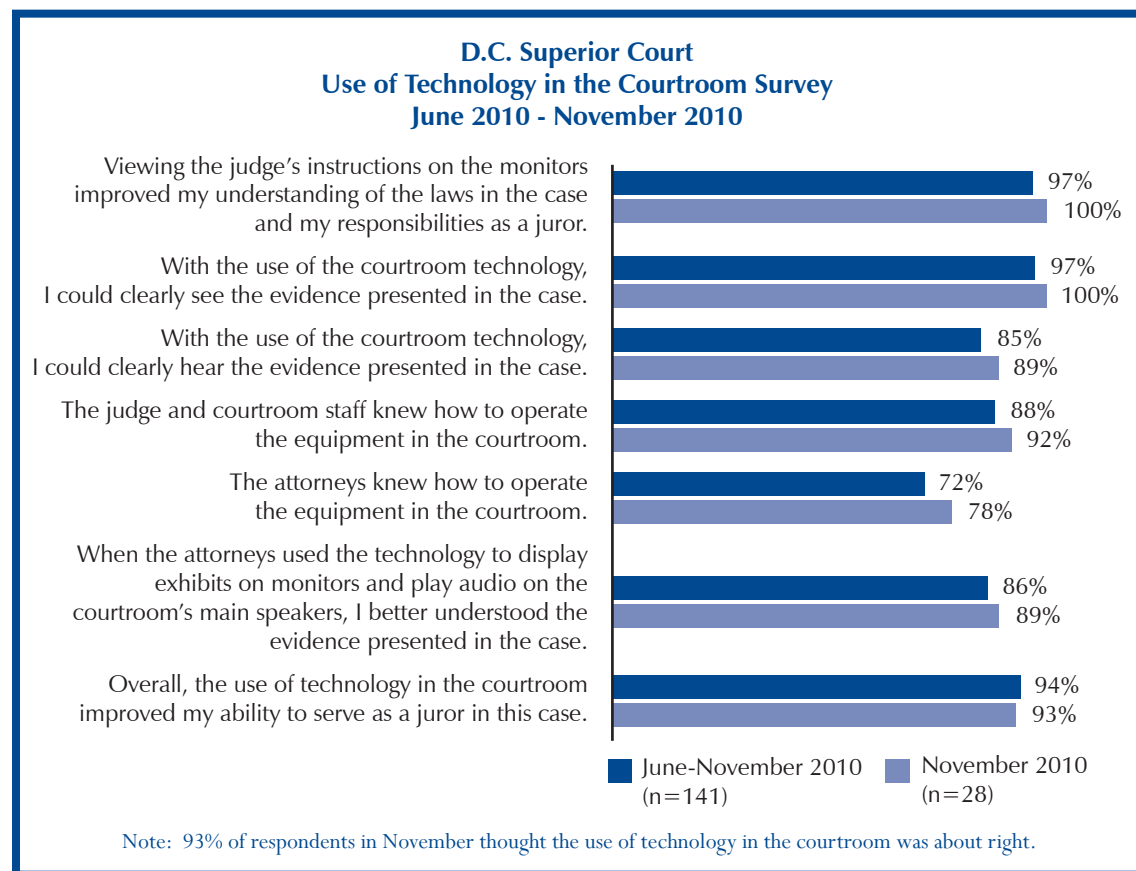
Remote Witness Testimony and Video Conferences

A video camera and broadband availability are essential for transmission or receipt of remote witness testimony or to conduct video conferences. Although remote witness testimony has occurred at an increasing rate over the last several years, even today it may be classified as occasional in civil trials and much less frequent in criminal trials. However, video conferencing does occur frequently in criminal arraignments and presentments, in status hearings and review hearings in dependency cases, and for remote language interpreting. With the availability of numerous online Web-conferencing solutions, any courtroom purporting to carry

the label “high-tech” must be able to transmit and receive remote witness testimony and conduct video conferences.

Juror Impressions Concerning Use of Technology During Trials

Over several months, I conducted 11 serious and complex criminal jury trials and presented surveys to the deliberating jurors and alternates after they were discharged from service. The surveys were intended to gather juror impressions concerning the effect, if any, the use of technology during the trials had on the jurors’ ability to see and hear the evidence and understand the instructions of law. Some aspects of the juror responses were very encouraging (see figure).



Final Thoughts

As time progresses, I expect all courts and counsel will improve their ability to use technology to enhance and improve the jury’s ability to see and hear the evidence and the court’s instructions. But, from personal experience, a court’s encouragement of the parties to use available technology accelerates that process. Some attorneys naturally are drawn to the use of technology in trials and other court hearings. Indeed, as I have urged and encouraged the use of the technology in my courtroom in complex and straightforward cases, I have noticed counsel gravitating to the use of the courtroom’s technology at a faster rate than previously experienced, which I can highlight with one example.

During one of my first trials during the survey interval, one defense attorney described himself several times by the redundant term “technology-challenged technophobe” to explain why he was making such limited use of the courtroom’s technology. The attorney probably thought this comment was necessary in his own defense. It was obvious during the trial that the prosecutor was making extensive use of the courtroom’s technology to project, for the benefit of the jury, enlarged images of videos, documents, and other evidence. In some of those instances the prosecutor directed the witness to mark the image where necessary to emphasize certain aspects of the testimony. However, something happened

to the defense attorney's way of thinking over the course of the trial. During a several-day recess before closing arguments, defense counsel prepared an outline of his closing argument using PowerPoint and projected a brief summary of the argument as he was making it. The PowerPoint summary projected at each stage of the argument was normally one sentence or less, including in some instances a topic heading or just a single word. It was obvious to me, and I am sure everyone else in the courtroom, that this was a well-prepared closing argument that touched all the important points. The attorney had obviously put significant thought into the order of his comments and the major points that he wanted to make. This self-proclaimed "technology-challenged" attorney gave the smoothest and most compelling closing argument that I had ever seen him make. This experiment became a transformational event. Since that time, PowerPoint-aided opening statements and closing arguments have become a staple for him, as has an increasing use of technology during trials. With this experience, my objective now is to increase the use of technology in trials, one lawyer at a time.

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