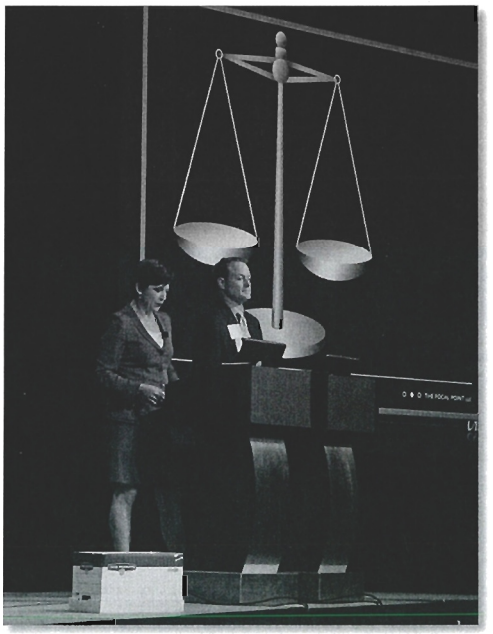
ARE YOUR JURORS AWAKE? PERSUADING *by use of* 21ST CENTURY TECHNOLOGIES

A demonstration of the use of cutting-edge technology to illustrate and enhance testimony and argument in trials anchored the Saturday program at the Toronto annual meeting.



Technology demonstration

Moderator **William B Smith**, FACTL, San Francisco, California, **Nanci L. Clarence**, FACTL, also of San Francisco, and **Douglas H. Arnest**, owner, vice-president and consultant of High Impact, Inc., Englewood, Colorado, delivered a fast-paced demonstration of an array of computer-based programs and techniques now available to trial lawyers. Their presentation ranged from the familiar to concepts that were undoubtedly outside the knowledge of many in the audience.

The presentation began with two pieces of humor, one intended, the other apparently not. The participants appeard onstage, one carrying a stack of heavy file boxes full of paper exhibits, one an easel and one a foamboard-mounted exhibit. As if on signal, the stack of boxes tumbled and the easel and exhibit fell

off the stage. Ms. Clarence then asked: "Ladies and gentlemen, is this how you are still trying your cases?"

The unintended humor resulted when the first electronic exhibit would not come up, prompting one of the participants to utter, *sotto voce*, "Gotta love this technology. It's not coming up." Eventually, however, it did come up.

Smith launched the program by observing: "[N]ew technology . . . is more effective, more efficient, and more flexible. It is effective because eighty-five percent of what we learn, we learn visually. And your audience has changed. Eighty percent of your jurors are younger than forty-six in many jurisdictions. And many of us in this room still live in Wordland only, whereas the majority of your jurors are outside of Wordland. They are living in a visual word. They learn from computers. They learn from TV screens. They learn from Kindles. . . . It is a brand new world."

"Electronic presentation of evidence," he continued, "results in increased attention, increased retention, and increased comprehension. . . . It is more efficient. You don't need to lug around boxes like we did around the stage. One disc holds 60,000 pages of documents. It is efficient because you can cut thirty to fifty percent trial time, and you can get three to four times as much evidence into evidence in the same period of time. It is flexible."

Starting with a demonstration of text pulls using the familiar Trial Director, he demonstrated how the relevant portions of a document can be highlighted, enlarged, cleaned up and colorized to allow the court and jurors to focus on the important portions.

He then went on to demonstrate how electronically created exhibits can be changed in midstream if the evidence makes a change necessary. Using a variety of digital files, Arnest showed how an X-ray film could be converted to make unnecessary the use of a lightbox to display it in court and how digital files created by a medical illustrator can be used to demonstrate the magnitude of a physical injury without enlarged exhibit boards.

Arnest went on to demonstrate a technology new to the courtroom called Flash, which overcomes the difficulty of visualizing the level at which a CT scan has been taken by preparing a non-linear, interactive presentation that is easy to navigate and visually stimulating. He showed how Flash can be used to demonstrate an individual's traumatic brain injury and the surgeries the injured person endured. "Simply put," he explained, "Flash enables you as an attorney to provide more information in less time, and that results in greater comprehension. He used a 3-D animated skull fracture inflicted by a golf club to show how this technique can be used to move through the plaintiff's brain, looking at each level, seeing the depth and extent of the brain injury, and visualizing the shape of the golf club in the injured person's skull.

Smith pointed out that besides the obvious advantages of being more effective, efficient and flexible, this technology allows counsel to illustrate difficult concepts and theories. He showed, for instance, how a digital graphic could be used to demonstrate the difference between the important terms

"equivalent" and "identical," concepts that are often confused in a patent case.

The panel went on to illustrate, using electronic exhibits, how such technology could be used to explain scientific concepts, in the example used, to demonstrate how both the mental illnesses Parkinsons, which a jury understands, and schizophrenia are caused by chemical imbalances, making a defense of schizophrenia as a disease understandable to a jury.

Ms. Clarence demonstrated how one e-mail that was being used to establish a defendant's intent to deceive, could be put in context by loading into an exhibit blue dots representing every e-mail sent by the defendant in the relevant time frame, with the ability to pull down each pixel to show the attached message, thereby illustrating the the futility of trying to show have an intent to deceive using one e-mail from a sea of e-mails.

She showed how graphics could be effectively used in a closing argument to analyze legal concepts, such as "beyond a reasonable doubt," using a set of scales and adding facts to each side of the scales.

The panel demonstrated the use of impact photos, including photos that tell the story with one photo, side-by-side photos to show dramatic changes and enlarged photos that highlight small details that destroy the credibility of oral testimony. They demonstrated the use of graphics, supported by testimony to illustrate a sequence of events.

Ms. Clarence demonstrated the dramatic use of a timeline going back in time, to which was attached at the appropriate place every incident supported by testimony that led to the conclusion that defendants in a celebrated second degree murder case had prior knowledge that their dogs were capable of killing. Smith illustrated the use of a timeline going forward establishing a compelling chronology leading to a conclusion of unlawful commercial activity. In each case, technology enabled counsel to click on the box illustrating each relevant event in walking through the timeline and to delete any event that was not allowed in evidence without necessity of redoing the entire exhibit.

Ms. Clarence demonstrated how counsel could make jury instructions come alive by putting each element in a box, creating building blocks that could be tied to evidence proving or disproving each element, progressively presenting in a compelling way how the jury could apply complicated legal concepts.

The panel showed how visuals could be used to humanize a client by telling his or her life story and how complicated business transactions could be explained, element by element. They demonstrated, for instance, how a jury could be made to understand a commercial loan transaction by breaking it down into its simple sequential component parts.

Their next subject was the use of videos to tell a story—a television newsclip or a surveillance camera record of an event. From that they segued into the use of visual storytelling animations to tell a story, for instance the illustration of how a machine works, explaining the concept of 3-D modeling by an animator or the animation of a collision. The models used for this purpose can be made accurate to within a

millimeter by the use of laser scanning

They paid particular attention to the use of this technique in *Markman* hearings in patent cases to educate the court efficiently and accurately about the meaning of patent claims at issue, relating the claims to a visual illustration, so that the judge does not make his or her own interpretation from the claim documents.

The panel warned that on occasion modeling and visual animations may indeed point up weaknesses in one's own case. They explored the use of one's own expert to discredit an opponent's visual animations or to prepare one's own animation to refute that of the opponent. It is crucial, they emphasized, that every fact depicted in your animation be supported by evidence, the absence of which may be detected by slowing down the animation. In short, these are tools for use in a courtroom. They are the medium, not the message, and they do not form your trial strategy; they simply illustrate it.

From there, the panel delved into esoteric new technology that is becoming available, called three-dimension volumetric rendering, which enables the demonstration of injuries in a whole new light. First, the individual's CT or MRI scans are scanned into a computer. Then each image is isolated. Then the injured areas of the brain are outlined on each isolated film. Then the computer is instructed to stack and merge the isolated images. The final product is a three-dimensional object with the areas of the injury isolated, identifiable, and quantifiable. In the exhibit they used, one could see blood and air contained within the brain in a 3-D model of an actual plaintiff's brain.

From there, the panel delved into the concept of live holograms. Already the Musion Eyeliner uses a high definition holographic video projection screen that allows spectacular, three-dimensional, moving images to appear within a live stage setting. This new technology brings dramatic, previously unseen 21st Century video film effects to live events, including audiovisual artistic performances, conference or trade show presentations, retail displays and large scale digital signage. Soon," Arnest predicted, "it will be in courtrooms. Experts will be able to testify from their offices. Criminals can have their day in court while safely behind bars."

Next, Ms. Clarence explained immersible virtual reality which can create three-dimensional immersive interactive worlds online. "I would say . . . it is a very useful medium, one that needs to be explored, because it allows us to not only tell jurors what they are going to see, not only display in 3-D, but to actually give them, where subjective perspective and point of view are at issue, the ability to be in the space, to see what witnesses see and then move and see what this witness saw, to put the fact-finder in the actual environment, in real time. The Rules of Evidence aren't yet written for this and we haven't seen them in an actual courtroom, although they have been used in mock trials and studied, including by some of the organizations . . . [of] trial court associations. We will be seeing this technology coming into our courtrooms, and we need to start thinking about how we are going to use [it]."