



Courtroom Technology: What's on the Horizon?

Featuring Dan Martin, IMS Trial Consulting Lead

Dan Martin shared his predictions concerning the types of trial technology that attorneys soon will be seeing—and using—in the courtroom and in online trials.

When Dan Martin first started in the trial consulting profession 25 years ago, the practice of videotaping depositions was still fairly novel. Today, not only are many depositions videotaped, but their capture is often accomplished remotely.

The attorneys Dan partnered with in the '90s were still arriving at trial laden with graphics printed on large boards, a presentation medium that, while not forgone, has largely been supplanted by video displays. He has seen Ultra HD (4K) video slowly begin to take the place of plain old HD, which took the place of standard definition...and so on. Once satisfied with 2-dimensional graphic images, clients are increasingly requesting 3D animations.

And the swiftest legal technology transformation Dan has witnessed took place about two years ago, when legal proceedings through the use of Zoom technology began to be conducted online.

Innovation in Trial Technology

As a trial consultant expert at [IMS Consulting & Expert Services](#) (one of the largest litigation support firms in the world) Dan has his fingers on the pulse of the courtroom technology industry. He and his colleagues typically are not only among the first to offer new technological tools to law firms, but they also play a role in the development of these innovations and are very often the catalysts for their widespread usage in courtrooms.

When asked about courtroom tech and media trends on the horizon, Dan predicted we will continue to see a widening frontier in trial graphics that mirrors technological innovations taking place all around us.

Dan shared, "My guess is that we'll begin to see some level of augmented reality and virtual reality technology make its way into courtroom displays available to juries. To me the question is how ubiquitous that technology will become in the coming years. Lots of courts provide jurors with their own individual display monitors. It's not farfetched to assume that jurors will be reaching down for a headset in five or ten years."

Augmented and Virtual Reality

Augmented reality (AR) and virtual reality (VR) are similar in that they enable people to experience 3D images virtually, but there are differences between the two technologies. AR adds virtual images to a real-life setting, while VR replaces the real-life setting with a completely virtual reality.



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Dan believes AR technology might be useful, for instance, in a product liability case in which a large piece of industrial equipment is at issue. That equipment could be brought into the courtroom virtually, enabling jurors to truly comprehend its enormity and complexity. They could walk around the structure and examine it from every angle. VR, on the other hand, might be used in an environmental case, for instance, to allow jurors to fly over the scene of a contamination site, and thus, gain a sense of the scope of damage.

Holograms

Dan offered another prediction too: "We're probably not far off from seeing hologram technology come to the courtroom. It's pretty exciting to think of all the potential applications for storytelling, and ultimately as a teaching tool. Imagine using holograms to present an anatomy tutorial in a personal injury case or to spin a chemical compound around in front of a jury box in a biopharma patent case."

Holographic technology is similar to AR technology in that they both can be used to bring a nonreal 3D object into a real-life space. They differ in that holograms are created by a process that uses a split laser beam and photographic plates and AR is created digitally. Also, the resolution of a hologram is lower than that of an AR image; however, the hologram has an advantage in that it can be seen with the naked eye, meaning no headsets are needed.

3D Animation

While Dan is excited to see these innovations appear in the courtroom, he said the high-tech tools his graphics team already has at its disposal, in most cases, relay information to jurors just as effectively.

"In addition to traditional trial graphics and simple 2D animation, 3D animation continues to be an amazing tool. We've used 3D for years to teach concepts, to put forth a version of events, or provide the lay of the land. Now we're seeing apps that use LiDAR-type scan data to quickly develop objects in 3D space. Anyone can play with this stuff," he continued.

Dan was referring to the new LiDAR sensor feature that is available on iPhones versions 12 Pro and up. LiDAR stands for light detection and ranging, and this technology uses waves of light pulses to generate information about the shape of an object or objects within a scene. A person with an iPhone can now download a scanner app, scan any object or scene with their phone, and then bring that scan into a 3D program (such as Blender) and use the information to create a 3D image for screen or to create a tangible model.

The 3D image created by an iPhone can even be placed directly into a PowerPoint program. Using the morph feature within that program, the object's movements can be displayed in a series of still slides—thus allowing jurors to see the image from every angle—or the object can be entirely animated on one single slide.

Drone Footage

Dan and fellow IMS Trial Consultant [Andrew Buckley](#) recently created an internal presentation entitled *Camera Obscura: A Peek Inside the Black Box of Media Production at IMS*. This demonstration contained drone footage of a swamp that was remarkably crisp and clear, so our viewers felt like they were actually there.



When asked if drone footage of that caliber is rare within the trial graphics industry, Dan responded, "Anyone filming in 4K video these days, and most are, can achieve crisp imagery. What sets our drone videos apart from that of other trial consulting firms is the level of artistry, the viewpoints that we are able to capture. In order to create high-level drone footage, you need a skilled pilot who possesses the sensibilities of a professional photographer-videoographer. At IMS, we happen to have a great one: my colleague Andrew Buckley."

Challenges to Consider

Adopting New Technology

While state-of-the-art display methods are widely used by law firms and their clients, including during online trial proceedings, some courtrooms may be a bit behind the times.

"Your new tech is only as good as your display, and in terms of display equipment, lots of courts are stuck in the past," Dan revealed. "We graphics people love our color-corrected 4K monitors and widescreen presentations, but the hot seat operators—the people who have to deal with actual tech in the courtroom—are often dealing with outmoded courtroom equipment with different parameters and are trying to fix things on the fly."

Dan gave two reasons why courts are sometimes slow to adopt recent technologies. The first is that they need to be absolutely certain innovations will not be unduly persuasive. Second, initially, new technology is very expensive, and courts may have little incentive to upgrade.

"We are always going to design for the highest quality," he said, "but we still need to be able to display those graphics in a courtroom that has old-fashioned equipment. They'll be high quality, just not at their full potential. And the truth is, we're not designing solely for the courtroom. Leading up to trial, graphics preparation aids the attorneys in their strategy development. Sometimes it's the power of a great presentation that leads the other side to decide to settle."

Connecting Messages with Media

The arsenal of display tools trial consultants and graphic designers have available to them has grown immensely and will continue to do so. But just like a power drill will not do the job of a tweezer, no tool is intrinsically superior to another. Each has their own purposes, and some are better suited than others to relay particular messages to jurors.



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"We're always going to use some digital graphics presentation because modern-day jurors have come to expect it," shared Dan. "But certain expert testimony, for instance, might be best relayed to jurors by having a witness scrawl a picture or write key points with a marker on butcher paper. We never put the media before the message. We help tailor the presentation to the narrative and the strategy. It's that alignment that keeps jurors alert and intrigued."

Dan and his team consider several factors when making determinations about the mediums to use in a legal matter. They make their decisions based on the key points that are crucial for

jurors to receive; the testimony styles, capabilities, and preferences of attorneys and witnesses; and the cost. Our trial consultants and designers often have the luxury of being able to choose between several display alternatives—all of which are capable of effectively doing the job.

Get Ahead of the Curve

The only constant in life is change, and that adage is particularly true when it comes to trial technology. When AR, VR, and even holograms one day hit the courtroom, Dan and his [trial consulting and graphics teams](#) will be ready to utilize them. They ever invest in new technological tools, become proficient in their use, and share them with their attorney partners.

The one thing that never changes is Dan and his teammates' overarching goal, which is to ensure attorneys are optimally positioned to win cases.

IMS Consulting & Expert Services delivers award-winning consultative trial and expert services for the most influential global firms through every stage of litigation. Combining the perspectives and proprietary methods developed over 30 years and more than 2,000 trials, IMS provides attorneys with the essential services they need to win: integrated strategy, expert witness placement, jury consulting, trial graphics, and trial presentation. With strategic locations in major U.S. markets, the IMS team is primed to support in-person and remote litigation needs from coast-to-coast. More at expertservices.com.