

TECHNOLOGY AND THE COURTS

A Futurist View

By Judge Herbert B. Dixon Jr.

Technology has invaded our professional and personal lives. The courts have not been immune to this invasion but rather are actively participating by maintaining court records electronically, enabling or even requiring electronic filing of pleadings and orders, and building high-tech courtrooms for evidence presentation. Not all of these changes have occurred due to proactive decisions to modernize. Indeed, some have come about due to limitations on the old way of doing business and others because of convenience.

Take, for example, a recent news story concerning the solution implemented by the San Diego County District Attorney's Office in response to a rule adopted by the San Diego Superior Court that bans poster board exhibits, except for murder trials. The solution? Issue tablet computers (i.e., iPads) to all attorneys in the office to use for evidence presentation and other displays.¹ While the court rule banning poster board exhibits may have been adopted to address declining storage space for trial exhibits, the response by the D.A.'s office gives its attorneys new tools to produce a more dramatic presentation than was possible using old-fashioned poster board. They can now present images electronically and zoom in, enlarge, highlight, annotate, and even animate the exhibits. The D.A.'s use of tablets to present evidence in the courtroom has gone over well with jurors. Older jurors are impressed that they can see an exhibit on a T.V. monitor, and younger ones are impressed that the tablet can be used for more than mere entertainment.

There are examples of current processes and procedures in Criminal and Family Court cases that portend the future use of technology in the courts, namely, Internet video-streaming applications that enable remote participation in hearings and distance communications between parties,

and software programs that help to minimize conflict that often occurs between parents during their efforts to comply with custody and visitation orders. Video arraignments and bond hearings are typical in many state courts and a number of courts are using Internet video-streaming applications such as Skype, WebEx, and Facetime to allow far-away and incarcerated parents to visit with their children and to participate in some court hearings. Additionally, courts in nearly all states have sanctioned the use of software programs that manage the details of shared-parenting issues and parental visitation, share the calendars of the children, store information about the children and expenses associated with their care and custody, and document communications between both the parents and the children.²

Having taken notice of these technological advancements, I am now ready to offer my visualization of some aspects of the technological future of the courts—on both near and distant time horizons.

Increased Video Hearings Will Lead to General Acceptance of Virtual Hearings and Trials

There will be a steady increase in video appearances by parties for motions hearings, including some evidentiary hearings, which will include remote witnesses, lawyers, and judges.³ Some judges or lawyers will come to this process kicking and screaming but will nevertheless relent due to necessity, e.g., to avoid an undesired delay in the proceeding. However, because of the impressive nature of high-definition video displays and the remote party (witness, lawyer, or judge) appearing larger than life on the receiving end, the legal profession will abandon its reservations about remote video participation in a court proceeding. It will not be unusual for an attorney to attend scheduled

appearances in several courts across the country in a single day.

The acceptance of video appearances will increase to such an extent that when court proceeding observers are unable to find the location of an in-person hearing in progress, they will be able to watch the proceeding in which they have an interest in special viewing rooms at the courthouse. Because of the prevalence of these near-virtual hearings, courts will gradually increase the availability of hearings being transmitted by online streaming. This will lead to increased experimentation with virtual hearings, probably at first by consent of the parties, where some jurors who are experts in the underlying subject matter of the trial will participate remotely, and, assuming the privacy of the deliberations process, participate remotely in the jury's deliberations.

Finally, after procedures have been instituted to ensure the sanctity of testimony received from remote locations, I predict the Supreme Court will find the Constitution's Sixth Amendment Confrontation Clause satisfied by the process—though this might not occur within my lifetime.

Clients Will Insist on Tech-Savvy and Competent Lawyers

Take, for example, the determination by Bank of America Merrill Lynch to audit the cybersecurity policies of its outside law firms.⁴ The increased incidence of cyber theft and computer hacking of businesses that provide essential services requires those entities to establish strong cyber defenses to protect their data. These increases in cyber defense by businesses have encouraged the cyber vandals to look for easier ways to access the prized information, namely, from lawyers and law firms whose electronic files contain some of the same information



category. First, Google Glass and similar wearable computer devices will be banned in nearly every courthouse. Also, there will be a steady reduction in the number of vehicle collision cases filed each year because of the increased prevalence of computer-guided cars and vehicle collision avoidance systems. Moreover, most public streets will have video cameras connected to centralized face recognition programs and data banks that will capture images of the events and identify the participants, leaving no doubt regarding the identity of participants and the party at fault.⁷ And, adding vehicle license plate recognition capability to the mix, the vehicle's owner will be identified even if the face of the driver is not recognized by the automated recognition system.

and, possibly, might provide insight to a digital back door to their client's information. As cyberattacks directed at U.S. businesses have become more prevalent, law enforcement agencies and regulators have expressed concern over cybersecurity at law firms, especially in view of the value of their corporate clients' information to potential attackers and because many lawyers and law firms have been slow adapting to new technologies. With the recent awareness that the nation's and world's infrastructure and essential service providers are the targets of increased cyberattacks, lawyers and law firms will increasingly be asked to demonstrate the sufficiency and reliability of their cybersecurity policies and protections.

Not only will clients insist on cybersecurity competence by its lawyers, but the clients will also insist that their lawyers employ technology to contain costs, such as using videoconferencing to contain travel expenses and other unproductive time waiting for the start of a meeting with the client.

Litigation Will Be Consumed by Discovery Requests for Geolocation Data

The rate at which litigants seek geolocation data will increase in civil and criminal cases. This information will be available from cellphones, tablets, cameras, GPS and

other location systems, and new technology products that have yet to be invented. We can expect an onslaught of new wearable computer product devices such as Google Glass⁵ and others that are still only rumors, including eyeglass-mounted computer systems, head-mounted computers, Apple's iWatch, and other smartwatch devices.⁶

In criminal cases, both prosecutors and defense counsel will be seeking GPS, cell site, and geolocation data. Law enforcement will seek the data to prove that the defendant was or could have been at the scene of the crime at the time of its commission or to disprove the defendant's alibi defense that he was somewhere else. Criminal defense counsel will be seeking similar information about the prosecution's witnesses to disprove that the eye or ear witnesses were at the location where they claim to have seen or heard that which the prosecutor claims. In civil cases, parties will be seeking similar information to prove the speed and direction of the vehicle at the moment of the accident, or the amount of time that passed since the driver's last rest stop.

In addition, I predict that some members of future societies will attempt to record their entire day with their personal wearable devices. Witnesses and litigants falling into this category will be prime subjects of the data search. I think I can safely offer two additional predictions in this

Technology-Assisted Discovery Will Rule the Day

As the extent to which society keeps paper records continually declines, e-discovery in litigation will become standard. Because of the exponential increase in the volume of electronically stored information (ESI), technology-assisted discovery will become a necessity. Current experience has shown that the amount of ESI available in complex cases may exceed the capacity of multiple persons over several years to review potentially responsive documents, and that technology is



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often employed to assist in the discovery production and review process. The newest form of technology-assisted review is known by the term *predictive coding*.⁸ Eventually, except for good cause shown (the standard exception in the law), limitations will be imposed on the amount of ESI a litigant may seek or be compelled to produce and use of technology to assist in the review of the documents will be the accepted best practice.

E-Filing Will Be the Norm

No longer will states be talking about e-filing new cases and pleadings. That will become the norm because of the minimum amount of human intervention needed for a court to receive the digital records and incorporate them within the court's docket and document management system. And this will eliminate the growing need for space to physically store paper filings. However, to guarantee the court's accessibility to all, court administrators will have to maintain into the foreseeable future a location and personnel at the courthouse to provide scanning and electronic filing assistance for those who are electronically challenged to assist them in converting their paper pleadings into a digital format.

Parties Will Promote the Use of Technology-Assisted Deception Detection

Probably the most far-fetched of all my predictions involves the use of technology to detect deception because of the continuing need for contested evidentiary hearings and trials, and because of the requirement for judges and juries to make credibility determinations. Nevertheless, I predict there will be a push to employ technology to assist with deception detection. This is not a resurrection of the plain old lie detector but the use of stylometric techniques to identify deceptive statements, an infrared camera to record eye movement and pupil dilation, a high-definition video camera to capture various fidgeting, a microphone to collect data concerning changes in vocal pitch, a weight-sensing platform to measure various body shifts, and even a 3-D

camera to track movements of the person's entire body. But more about that in a future technology column—maybe.

Conclusion

There is no doubt that technology will greatly influence future courtroom and litigation practices, but the extent to which change will occur is subject to a reasonable amount of speculation because of what are now referred to as *disruptive technologies*, that is, yet-to-be-invented technologies that will reshape our lives and change the way we live. Commonly recognized as disruptive technologies are

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the steam engine, telephone, automobile, radio, airplane, television, computer, cellphone, and Internet. While clearly some of these technologies were predicted before they came to be, others would have been difficult to imagine by early societies, e.g., the television, the cellphone, and the Internet. So, with this in mind, there is a fair degree of difficulty in guessing about the future when one considers the myriad inventions yet envisioned that might affect those projections. While some of my predictions are generally foreseeable, some of them approach the outer edges of what may be possible, and I look forward to the near future to tell me whether my crystal ball was pointing me in the right direction.

Lastly, I wish to thank two friends with whom I consulted who contributed to

some of these ideas: Sharon Nelson, Esq., president of the Virginia State Bar and an author and avid technology blogger, and Craig Ball, Esq., an award-winning technology writer who describes himself as a trial lawyer, technologist, and computer forensic examiner. ■

Endnotes

1. Janet Kwak, *District Attorney's Office Goes High-Tech in Courtroom: Prosecutors Use iPad App to Build Cases*, 10NEWS.COM (May 19, 2013), <http://www.10news.com/news/district-attorneys-office-goes-high-tech-in-courtroom-prosecutors-use-ipad-app-to-build-cases-05192013>; Press Release, San Diego Loves Green, San Diego Prosecutors Are Using I-Pads in Trials (Mar. 22, 2013), <http://www.americalovesgreen.com/articles/san-diego-prosecutors-are-using-i-pads-in-trials>.

2. One such program is Our Family Wizard, a description of which is located at <http://www.ourfamilywizard.com/ofw/index.cfm/about-us/the-our-family-wizard-websitec2ae-review-for-divorced-or-separated-co-parents>.

3. See, e.g., Keith B. Kaplan, *Will Virtual Courts Create Courthouse Relics*, 52 JUDGES' J., no. 2, Spring 2013 at 32.

4. Catherine Dunn, *Outside Law Firm Cybersecurity Under Scrutiny*, LAW TECH. NEWS (June 6, 2013), <http://m.law.com/module/alm/app/ltn.do#!article/1003461226>.

5. Google Glass is a wearable computer fitted on eyeglasses that contains audio and video capability by which the wearer may record his or her surroundings. The device includes a miniature display for the wearer to see data that are accessed or displayed by the computer.

6. Christopher Versace, *Apple iWatch or Google Glass—Finally Taking Wearable Computing Mainstream?*, FORBES (Mar. 27, 2013), <http://www.forbes.com/sites/greatspeculations/2013/03/27/apple-iwatch-or-google-glass-finally-taking-wearable-computing-mainstream>.

7. For a brief discussion of these recording and recognition capabilities, see Levi Sumagaysay, *Quoted: On Facial Recognition, State ID Databases and Cops*, SILICONBEAT (June 17, 2013), <http://www.siliconbeat.com/2013/06/17/quoted-on-facial-recognition-state-id-databases-and-cops>.

8. Herbert B. Dixon Jr., *Automating the Search and Review of ESI*, 51 JUDGES' J., no. 3, Summer 2012 at 36, http://www.americanbar.org/content/dam/aba/publications/judges_journal/12sum_jjdixontech.authcheckdam.pdf.