

Technology and the Law 50 Years Ago

By Judge Herbert B. Dixon Jr.

Fifty years ago, a CD was a certificate of deposit, not a compact disc that was invented 25 years later; computers occupied entire rooms compared with today's mobile devices that we carry in our pockets; Blackberry was an edible fruit; Green was a color and not an environmental movement to save the planet; and Tweet was something that birds did.¹ With this year's 50th anniversary celebration of the Appellate Judges Conference, the nostalgist in me decided to look at the way things were back then, the way they are now, and compare those views with predictions from back then of the way things would be now. I decided not to venture any predictions about what technology would bring to the law in the next 50 years, but, if you're curious, my technology column in the Summer 2013 issue of *The Judges' Journal*, "Technology and the Courts—A Futurist View," gives you an idea of my thinking.²

Fifty years ago, in 1964, an appellate court was just as likely to receive a brief typed on a manual typewriter as it was a brief typed on an electric typewriter. Today, however, most counsel generate appellate briefs on a computer using a word-processing program. Back then, standard delivery of the appellate filing would require boxes containing multiple copies of the brief and exhibits, and sometimes copies of the cases, statutes, law review articles, and other references cited in the brief. Now, the filing can be accomplished electronically in many appellate courts, or perhaps submitted on a DVD where citations in the brief are hyperlinked to each cited authority, all of which are on the DVD. What a difference a half century makes!

In 1964, routine litigation discovery protocol for attorneys and staff involved reviewing files in banker boxes and file cabinets in musty warehouses to determine the potential relevance of documents to the ongoing lawsuit. Now, the discovery



process requires a search for records that are located in the cloud and on computer hard drives, servers, thumb drives, smartphones, backup tapes, and other electronic devices having storage capacities of gigabytes and terabytes (millions of pages), and in some cases petabytes (billions of pages). Instead of paralegals, contract lawyers, big-firm associates, and general partners looking page by page for documents that are relevant to a discovery request, computers can now perform the task of searching through a database for relevant documents faster, more efficiently, and often at less expense than a manual review by an attorney and staff.³

The fact that, within the discovery process, computers are taking on the tedious task of conducting the initial stages of document review for final determination by an attorney calls to mind a host of predictions made in 1964 by Isaac Asimov, a prolific and heralded 20th century science fiction writer. One of Asimov's predictions was that the world of 2014 would have few

routine jobs that could not be done better by a machine than by any human being. At least as far as reviewing a database of electronically stored documents is concerned, Asimov's prediction was accurate.

Asimov was a biochemistry professor at Boston University. In 1964 he visited the New York World's Fair, after which he penned a piece for *The New York Times* offering his forecast of what the world would be like 50 years later, in 2014.⁴ Asimov knew better than to call his forecasts "predictions." Recognizing the difficulty of forecasting the world of 50 years hence, he labeled his musings a "guess" at what the world of 2014 might be like. However, I do not hesitate to call Asimov's musings exactly what they were: forecasts and predictions.

In some cases, Asimov's forecasts totally missed the mark. For example, Asimov predicted that, beyond aircraft, there would be increasing emphasis on transportation that makes little contact with the surface, and that even ground

travel would increasingly take to the air, a foot or two off the ground. Asimov predicted that jets of compressed air would lift land vehicles off the highways, that this would alleviate the problem of paving new roads, and that any smooth earth or level lawn would do as well as pavement. Asimov also predicted that in 2014 bridges would be of less importance because cars would be capable of crossing water on their jets, though he thought local ordinances would likely discourage such practices.

In some instances, Asimov's prognostications were a mixed bag of partially accurate forecasts. One example of this is his prediction that wall screens would replace the ordinary television set (do you remember those huge televisions of yesteryear that were sometimes 30 to 40 inches deep?) and that transparent cubes would exist to provide three-dimensional viewing. On this latter prediction, Asimov offered his forecast that a popular exhibit at the 2014 World's Fair would likely be such a 3-D TV, built life-size, in which ballet performances would be seen and the cube would slowly revolve for viewing from all angles. Notwithstanding that a World's Fair is not scheduled in 2014, this forecast by Asimov may not have been that far off, considering that Michael Jackson, a deceased pop superstar, gave a performance by hologram at the Billboard Music Awards in early 2014.

In other areas of life, Asimov's forecasts were remarkably accurate. For example, he predicted that communications would become "sight-sound" and that the 2014 population would see and hear the person they telephoned. Asimov also predicted that the screen during the "sight-sound" call would be used not only to see the other person, but also to study documents and photographs and to read passages from books. In addition, Asimov predicted that synchronous satellites would hover in space and make it possible for individuals to direct-dial any spot on earth. Viewed in the 20/20 lens of hindsight, Asimov's forecasts regarding these issues demonstrated amazing prescience.

Immediately, the lawyer-technology advocate in me recognized that in 1964,

the idea of a witness or lawyer appearing at a trial by videoconference was almost unfathomable. Today, however, in an increasing number of cases, lawyers appear remotely by videoconference and so do trial and appellate judges. To this end, as a proof of concept, I recently participated in a mock "virtual trial" with a group of four judges located on three continents.⁵ The "virtual trial," conducted through the medium of the Internet, included video, audio, and a database of documents. Also, video appearances have become routine in certain administrative agencies such as the Social Security Administration. The factors driving the rise of video hearings are the reduced expenses and increased efficiency, for both the agency and the applicant, from taking advantage of contemporary technology.

The Internet, which did not exist 50 years ago in 1964, is the dominant technology used for remote video appearances. The Internet also offers other capabilities not available in 1964 such as the ability to electronically file court pleadings and other documents from one's home, office, or any place around the world and to view, from those same locations, documents that have been filed in various cases. It is easy to understand how Internet-based research has nearly relegated a trip to the library for legal research to a nostalgic memory from our days as law students among the senior lawyers among us. Indeed, in 1964, society embraced the concept of carrying around a little calendar in which a person noted a schedule of future appointments, a "to do" list, and a few reminders. Today, in 2014, we embrace the mobile device, be it a smartphone or tablet computer, on which we can access not only to our calendar, a "to do" list, and reminders, but also cameras, video players, rolodexes, tape recorders, diaries, albums, televisions, maps, newspapers, and extensive libraries of other private and public information.⁶

Finally, I could not end this column without mentioning one of Asimov's more unusual forecasts. He predicted the high toll of stress we would face in 2014 as a result of the role of technology in our lives and its takeover of most routine

jobs. Asimov predicted that mankind in 2014 would suffer badly from the disease of boredom and that serious mental, emotional, and sociological consequences would befall the world's population. As a result, Asimov predicted, psychiatry would be the most important medical specialty in 2014. Even though I am a part of society in 2014 (or maybe especially because of that fact), I won't dare comment on that last prediction, Professor Asimov. ■

Endnotes

1. Jocelyn Noveck, *50 Ways Life Has Changed in the Last 10 Years*, *THESTAR.COM* (Dec. 21, 2009), http://www.thestar.com/news/world/2009/12/21/50_ways_life_has_changed_in_the_last_10_years.html.

2. Herbert B. Dixon Jr., *Technology and the Courts: A Futurist View*, 52 *JUDGES' J.*, no. 3, Summer 2013, at 36, http://www.americanbar.org/content/dam/aba/publications/judges_journal/2013_sum_jj_tech.authcheckdam.pdf.

3. 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/2012_sum_jj_tech.authcheckdam.pdf.

4. Isaac Asimov, *Visit to the World's Fair of 2014*, *N.Y. TIMES* (Aug. 16, 1964), <http://www.nytimes.com/books/97/03/23/lifetimes/asi-v-fair.html>.

5. Kathleen Hall, *E-Trial Judges Hail Digital Court Future*, *L. SOC'Y GAZETTE* (June 2, 2014), <http://www.lawgazette.co.uk/news/e-trial-judges-hail-digital-court-future/5041446.article>.

6. Adapted from *Riley v. California*, 2014 U.S. LEXIS 4497 (June 25, 2014).



Judge Herbert B. Dixon Jr. is the technology columnist for *The Judges' Journal*, a member of the *ABA Journal* Board of Editors, and a former

chair of the National Conference of State Trial Judges. He sits on the Superior Court of the District of Columbia and can be reached at Herbert.Dixon@dcsc.gov. Follow Judge Dixon on Twitter @Jhbdixon.