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Legal Update

The Electronic Courtroom

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Table of Contents

I.	Introduction . . . . .	[1]
II.	Court Automation . . . . .	[4]
III.	CD-ROM Legal Briefs. . . . .	[7]
IV.	Electronic Case Filing . . . . .	[12]
V.	Funding. . . . .	[16]
VI.	Conclusion . . . . .	[18]

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# The Electronic Courtroom<sup>†</sup>

James Crowell\*

## I. INTRODUCTION

1. Today, litigators and judges need an increasing awareness of computers and technology. This Legal Update will examine some of the technology that can assist litigators and judges in and out of the courtroom. This Update includes a brief look at the not-so-distant future courtroom, the role of court automation, filing briefs on compact disc, filing cases electronically, and methods of funding courtroom technology.

2. In April, 1997, the William and Mary School of Law applied computer technology to a mock trial to evaluate the technology's future in United States courts.<sup>1</sup> The mock trial showcased new technologies, such as "digital audio/video testimony storage and retrieval,<sup>2</sup> computer animation,<sup>3</sup> and remote international televised testimony."<sup>4</sup> The court reporter produced a "real-time transcript" that attorneys used to "search, retriev[e], and display" testimony throughout the trial.<sup>5</sup> For example, if a witness's testimony conflicted with an answer he gave during a

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<sup>1</sup> See Cindy Collins, *Technology Advance . . . Rejection of HTML Brief Just Temporary Setback, Experts Say*, INSIDE LITIG., June 1997, at 17, 18.

<sup>2</sup> Digital audio/visual technology can store and retrieve information, such as testimony, allowing a party to play back what the camera filmed during the trial. *See id.*

<sup>3</sup> The mock trial participants used computer animation to portray a fire that was the subject of the litigation. *See id.* This animation may have shown the jury "more in ten minutes than 100 witnesses and over 100 hours of testimony" ever could. *Id.* Nevertheless, the animations are expensive and may be unduly prejudicial. *See id.*

<sup>4</sup> *Id.* Jurors looked at a monitor in the witness box to see and hear real-time testimony from Norway. *See id.*

<sup>5</sup> *Id.*

deposition, the attorney could instantly replay the deposition testimony for the jury.<sup>6</sup> Nevertheless, one participant noted that although the technology was useful, it “didn’t reduce the amount of good old-fashioned lawyer skills that are needed.”<sup>7</sup>

3. The judiciary is pressured by numerous external and internal factors to keep pace with technology. Both litigants and the public have frequently criticized the judiciary’s inability to administer justice quickly.<sup>8</sup> Increases in the number of federal and state judges have not kept up with the increasing number and complexity of cases filed in all jurisdictions.<sup>9</sup> Although new technology would increase judicial efficiency, inadequate funding prevents judges from making the investment.<sup>10</sup> In response, some state courts have mandated surcharges and other alternate means to raise funds for courtroom technology.<sup>11</sup>

## II. COURT AUTOMATION

4. The efficiency of automation allows courts to hear more cases, and this increased access to courts may aid the public in more immediate ways. For example, a domestic violence victim can prevent further abuse by filing a restraining order at a court kiosk, a device similar to an ATM machine.<sup>12</sup> This type of

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<sup>6</sup> *See id.*

<sup>7</sup> *Id.* at 19.

<sup>8</sup> *See* John B. McArthur, *The Strange Case of American Civil Procedure and the Missing Uniform Discovery Time Limits*, 24 HOFSTRA L. REV. 865, 875-76 (1996) (explaining how the increase in case filings has resulted in delayed and inefficient litigation); Edward D. Re, *The Causes of Popular Dissatisfaction with the Legal Profession*, 68 ST. JOHN’S L. REV. 85, 109-10 (1994) (explaining how delays caused by increased litigation lessen the public’s opinion of lawyers).

<sup>9</sup> *See* McArthur, *supra* note 8, at 876, 939 (explaining that few jurisdictions have successfully dealt with increased litigation and that more judges are needed to process these cases); Patricia M. Wald, *The Problem with the Courts: Black-Robed Bureaucracy or Collegiality Under Challenge?*, 42 MD. L. REV. 766, 770-71 (1983) (identifying the complex nature of recent cases’ subject matter as a contributing factor to judicial inefficiency). Judges and court administrators must install technology to help them handle their increased case loads without jeopardizing litigants’ rights or increasing the time it takes to resolve cases. *See* Scott J. Silverman, *Funding Technology and Automation for the Courts in a New Millennium* (visited Mar. 28, 1998) <<http://www.netrox.net/~scotts/index.html#Publications>>.

<sup>10</sup> *See* Silverman, *supra* note 9.

<sup>11</sup> *See infra* notes 53-61 and accompanying text.

<sup>12</sup> *See* Silverman, *supra* note 9.

automation increases public access to the courts, furnishes the public with practical legal information, and gives the public insight into the often complex and murky world of jurisprudence.<sup>13</sup>

5. Arizona's court automation program is one example of a program that has increased access to the courts.<sup>14</sup> Since 1993, Arizona residents have used an interactive computer system called QuickCourt to access simple legal forms and information that previously would have required an individual to consult an attorney or a court clerk.<sup>15</sup> This simple legal access system explains legal terms, provides information on alternative dispute resolution, and assists litigants in completing basic legal forms.<sup>16</sup> QuickCourt averages twenty-five transactions per day, including the distribution of eviction notices and divorce forms that users can immediately file with the court.<sup>17</sup> The system satisfied eighty percent of users, many of whom could not otherwise afford an attorney to help them file the forms.<sup>18</sup>

6. Although Arizona is one of many jurisdictions using computers to expand citizens' access to the judicial system, the courts have hardly limited the utility of courtroom modernization to aiding the citizenry. Some judges find that information technology enhances the judicial process.<sup>19</sup> The Internet and other electronic research systems provide current, inexpensive, and easily accessible research services to the judiciary, including quick access to relevant cases and statutes.<sup>20</sup>

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<sup>13</sup> See generally *id.*

<sup>14</sup> See generally *QuickCourt System* (visited Mar. 28, 1998) <<http://ksgwww.harvard.edu/~innovat/winners/qcaz94.htm>>.

<sup>15</sup> See *id.*

<sup>16</sup> See *id.*

<sup>17</sup> See *id.*

<sup>18</sup> See *id.*

<sup>19</sup> See Silverman, *supra* note 9. "[C]ourts constantly are testing new technologies . . . to better manage the constant growth of caseloads." *Technology Increases Public Access to Federal Courts* (visited Mar. 28, 1998) <[http://www.uscourts.gov/Press\\_Releases/paccess.htm](http://www.uscourts.gov/Press_Releases/paccess.htm)>. The federal courts use an electronic bulletin board system ("BBS"), called the Public Access to Court Electronic Records ("PACER") system, to supply case and docket information. See *id.* The Northern District of Ohio took the technology one step further by allowing the attorneys in complex asbestos cases to use the Internet to file court documents electronically and to disseminate information to the parties. See *id.*

<sup>20</sup> See Joan Lambert, *Stanford Law School's Securities Class Action Clearinghouse: Securities Litigation Meets The Web*, INSIGHTS, July 1997, at 14, 14 (discussing the advantages of maintaining information about class action securities litigation on the Internet). The federal judiciary publishes general information about the judicial branch, a glossary, and the Directory of Electronic Public Access Services on its Internet site. *The Federal Judiciary Homepage* (visited Mar.

Further, citation services and all other electronically-digested media eliminate the need for large individual libraries and manual searches for cases and statutes.<sup>21</sup>

### III. CD-ROM LEGAL BRIEFS

7. New compact disc drives that allow users to create their own compact discs may signal “the beginning of the end of the era of paper briefs.”<sup>22</sup> While legal briefs have always allowed attorneys to reference trial transcripts, depositions, or other documents, a brief filed on compact disc makes those documents available to a judge with just a click of the mouse.<sup>23</sup> By creating hypertext links to the supporting documents, similar to those available on the World Wide Web, attorneys can include videotaped testimony and depositions, photographs, animations, transcripts, cited cases, and other exhibits all in one place without using reams of paper.<sup>24</sup> This type of brief minimizes the time that judges and their clerks spend finding and retrieving cases and other documents.<sup>25</sup>

8. The Supreme Court led the way by allowing attorneys to “lodge”<sup>26</sup> with the Court briefs and supporting documents on compact disc. The amicus brief lodged by the American Association of University Professors in *ACLU v. Reno*<sup>27</sup> contained hyperlinked references to cases and an appendix of exhibits linked to cached World

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28, 1998) <<http://www.uscourts.gov/>>; see also *Technology Increases Public Access to Federal Courts*, *supra* note 19 (discussing the use of the federal judiciary web site).

<sup>21</sup> See Blodwen Tarter, *Information Liability: New Interpretations for the Electronic Age*, 11 *COMPUTER/L.J.* 481, 509 (1992).

<sup>22</sup> Collins, *supra* note 1, at 17.

<sup>23</sup> See Katarena L. Zanders, *Litigation Alert*, *INSIDE LITIG.*, Apr. 1997, at 17, 17. Francis Gindhart, an attorney at Fish & Richardson, P.C. who has overseen the production of CD-ROM briefs, noted that “for hundreds of years, appellate briefs have summarized an argument and encouraged the appellate judge to go behind the brief, go read the prior case law, and go examine the trial transcript,” while with an electronic brief, the judge easily finds these resources in one document. *Id.*

<sup>24</sup> See *id.*

<sup>25</sup> See *id.*

<sup>26</sup> The Court accepts only paper briefs for official filing. See Carl A. Solano, *Electronic Briefs: Soon to be Commonplace?*, *PA. LAW.*, Sept.-Oct. 1997, at 18.

<sup>27</sup> 117 Sup. Ct. 2329 (1997).

Wide Web pages.<sup>28</sup> The Court only had to click on those links to view the referenced documents.<sup>29</sup>

9. Attorneys have also used compact disc technology in cases heard by the Federal Circuit. The electronic brief rejected by the Federal Circuit in *Yukiyo, Ltd. v. Watanabe* included instructions for using the compact disc, a copy of the brief with hypertext links to supporting documents, and the supporting documents themselves.<sup>30</sup> Included among the supporting documents were

published cases, statutes, rules, and items that are normally contained in the joint appendix, such as trial transcripts, district court orders, and jury instructions. A videotape that was in evidence in the district court [was] also included in the hypertext.<sup>31</sup>

10. Although the court noted the benefits of compact disc briefs, the court rejected the *Yukiyo* brief because it was concerned about the procedural fairness to the other party.<sup>32</sup> Nevertheless, the court established guidelines for future submissions and invited proposals for “suggested rules, standards, and guidelines for the filing of CD-ROM briefs.”<sup>33</sup>

11. Despite the Federal Circuit’s rejection of the *Yukiyo* brief, CD-ROMs continue to be a viable form of filing. Members of the American Intellectual

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<sup>28</sup> Appendix of Exhibits to Brief of Amici Curiae American Association of University Professors in Support of Appellees, *ACLU v. Reno*, 117 Sup. Ct. 2329 (1997) (No. 96-511) available in *Appendix of Exhibits* (visited Mar. 28, 1998) <<http://www.shsl.com/internet/supcourt/toc.html>>.

<sup>29</sup> *See id.*

<sup>30</sup> 111 F.3d 883, 885 (Fed. Cir. 1997).

<sup>31</sup> *Id.*

<sup>32</sup> *See id.* at 886. James Keane & Francis Gindhart note other concerns that may arise in the criminal context. *See Zanders, supra* note 23, at 18. The government may be disadvantaged in cases against wealthy defendants while poor defendants may be disadvantaged when using free legal assistance in defending themselves against the comparatively rich resources of the government. *See id.* Most importantly, Keane notes that the role of the appellate courts may change. *See id.* Traditionally, the appeals courts have left the trier of fact to evaluate a witness’s demeanor and credibility but with an increase in the number of videotaped trials and the inclusion of the videotape on CD-ROM briefs, the appellate court will also be able to view a witness’s testimony and then make an assessment of the witness’s credibility. *See id.*

<sup>33</sup> *Yukiyo*, 111 F.3d at 887. Fish & Richardson then followed up by submitting a proposed rules for compact disc filings. *See Rules Proposed for CD-ROM Legal Briefs* (last modified June 2, 1997) <<http://www.fr.com/about/elecproposal.html>>.

Property Law Association were enthusiastic about CD-ROM briefs at a meeting in January 1997.<sup>34</sup> In late 1997, Fish & Richardson joined forces with opposing counsel Merchant, Gould, Smith, Edell, Welter & Schmidt to file the first joint compact disc hypertext brief to the Federal Circuit.<sup>35</sup>

#### IV. ELECTRONIC CASE FILING

12. In addition to allowing the filing of CD-ROM briefs, many jurisdictions are experimenting with electronic case filing.<sup>36</sup> With increasing public access to computer technology, electronic filing of court documents allows for paperless interaction among the courts, attorneys, litigants, and the public.<sup>37</sup>

13. Although electronic filing has many benefits, this new technology raises concerns about the security and authenticity of documents.<sup>38</sup> Filing a paper document has always required the signature of the litigant or her attorney, but, until recently, there was no way for litigants who wanted to file electronically to provide the same type of authentication.<sup>39</sup> Jurisdictions have addressed this concern by allowing the use of digital signatures on documents filed electronically.<sup>40</sup> A digital signature utilizes public key encryption technology to send encrypted or private secured messages that a certification authority, like a traditional notary, authenticates.<sup>41</sup> The sender assigns two keys, which are strings of characters, to the

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<sup>34</sup> See Zanders, *supra* note 23, at 17. Francis Gindhart predicts CD-ROM briefs “will revolutionize the way appellate courts receive and process information.” *Id.*

<sup>35</sup> See *First Ever Joint HTML Brief Developed by Fish & Richardson* (last modified Oct. 7, 1997) <<http://www.fr.com/about/htmlbrief.html>>.

<sup>36</sup> See Allison Stanfield, *Cyber Courts*, § 3.5 (last modified Nov. 16, 1996) <<http://www.ozemail.com.au/~astan/Sec3.htm>>. Ohio, Arizona, and Maryland currently allow electronic filing on a trial basis. See *id.* The Colorado Judicial Branch has created a committee to review the operation of the court system and to suggest means to update and integrate new technologies. See *1995 Technology Report on the Colorado Courts* (visited Mar. 28, 1998) <<http://www.rmii.com/slv/courts/iis/95tecrpt.htm>>.

<sup>37</sup> See Stanfield, *supra* note 36, § 3.5.

<sup>38</sup> See *id.*

<sup>39</sup> See *id.*

<sup>40</sup> See *id.*

<sup>41</sup> See Christy Tinnes, Note, *Digital Signatures Come to South Carolina: The Proposed Digital Signature Act of 1997*, 48 S.C. L. REV. 427, 429-30 (1997).

document.<sup>42</sup> One key is public and available to everyone, while the second key is private and unique to the sender.<sup>43</sup> The certification authority provides the recipient with a copy of the sender's unique private key.<sup>44</sup> The recipient uses the public key to access the signature and then compares the signature to the sender's unique private key.<sup>45</sup>

14. Federal Rule of Appellate Procedure 25 allows local courts to enact rules permitting "papers to be filed, signed, or verified by electronic means."<sup>46</sup> Utah's digital signature statute is designed to facilitate electronic commerce while reducing fraud.<sup>47</sup> California's digital signature statute allows the use of a digital signature "[i]n any written communication with a public entity . . . in which a signature is required or used," if the digital signature meets state-mandated guidelines.<sup>48</sup> Other states are also considering digital signature legislation.<sup>49</sup>

15. States are not the only jurisdictions exploring the use of digital signatures for electronic filings.<sup>50</sup> The American Bar Association drafted model national digital signature legislation based on the Utah statute.<sup>51</sup> Although the

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<sup>42</sup> See *id.*

<sup>43</sup> See *id.*

<sup>44</sup> See *id.*

<sup>45</sup> See *id.*

<sup>46</sup> FED. R. APP. P. 25.

<sup>47</sup> Utah Digital Signature Act, UTAH CODE ANN. § 46-3-101 (Supp. 1997); see also *Recent Legislative Developments in Utah Law*, 1995 UTAH L. REV. 1157, 1170 (1995). Georgia's digital signature task force has developed a draft statute similar to that of Utah. See *Georgia Digital Signature Task Force* (visited Mar. 2, 1998) <<http://www.cc.emory.edu/BUSINESS/gds.html>>.

<sup>48</sup> CAL. GOV'T CODE § 16.5(a) (West Supp. 1998). Iowa permits the use of electronic signatures on voter registration forms, provided the "state voter registration commission" promulgates rules that "guarantee[ ] the security and integrity of electronic signatures." IOWA CODE ANN. § 48A.13 (West Supp. 1997).

<sup>49</sup> See *McBride Baker & Coles Summary of Electronic Commerce & Digital Signature Legislation* (last modified Mar. 23, 1998) <[http://www.mbc.com/ds\\_sum.html](http://www.mbc.com/ds_sum.html)> (listing status of digital signature legislation in various jurisdictions).

<sup>50</sup> See *id.*

<sup>51</sup> See Information Sec. Comm., ABA Sec. Sci. & Tech., *Digital Signature Guidelines* (last modified Oct. 1, 1998) <<http://www.abanet.org/scitech/ec/isc/dsgfree.html>>; see also William E. Wyrrough, Jr. & Ron Klein, *The Electronic Signature Act of 1996: Breaking Down Barriers to Widespread Electronic Commerce in Florida*, 24 FLA. ST. U. L. REV. 407, 432 (1997).

legal profession has been slow to accept the technology, it is likely that the advantages of a digital system, such as paper reduction, increased efficiency, and immediate billing, will mean that digital signature systems will soon become standard fare and “as binding as pen on paper.”<sup>52</sup>

## V. FUNDING

16. Despite judicial recognition of the value of integrating technology into the courtroom, some courts must still work with outdated systems because of inadequate funding.<sup>53</sup> Several states fund court automation in innovative ways, such as by permitting judges or clerks to levy surcharges on litigants or their attorneys.<sup>54</sup> Poor individuals can be spared these fees.<sup>55</sup> Judge Silverman<sup>56</sup> notes this “pay as you go” philosophy may be “based upon the equitable concept that those who use the system should bear the financial burden of paying for its betterment.”<sup>57</sup> By excusing the indigent from the surcharges, courts shift the burden of funding their automation from the general taxpayer to the attorneys who most benefit from courtroom automation.<sup>58</sup>

17. In Missouri, the legislature resolved this issue by creating a “Statewide Court Automation Fund” (the “Fund”).<sup>59</sup> The Fund’s money comes from a surcharge applied to all civil and criminal cases filed in the state.<sup>60</sup> A court automation

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<sup>52</sup> See Stanfield, *supra* note 36, § 3.5.

<sup>53</sup> See *Court Technology in the 21st Century* (visited Jan. 9, 1998) <<http://www.ncsc.dni.us/ncsc/bulletin/future/future.htm>> [hereinafter *Funding Barriers*] (comments of Paul Engel, President of SCT Government Systems, Inc.).

<sup>54</sup> See Silverman, *supra* note 9; *Funding Barriers*, *supra* note 53 (comments of Paul Engel).

<sup>55</sup> See Silverman, *supra* note 9; see also *Funding Barriers*, *supra* note 53 (comments of Paul Engel) (giving alternatives for technology funding).

<sup>56</sup> Judge Silverman is a state trial court judge in Dade County, Florida.

<sup>57</sup> Silverman, *supra* note 9.

<sup>58</sup> See *id.*

<sup>59</sup> MO. ANN. STAT. § 476.055 (West Supp. 1998).

<sup>60</sup> See *id.* § 476.053

committee administers the Fund and will “develop and implement a plan for a statewide court automation system.”<sup>61</sup>

## VI. CONCLUSION

18. Courtroom technology in all of its forms represents the future of courts in America. Court automation and information services benefit the citizenry by increasing access to the judicial world and benefit attorneys and judges by limiting time and costs and increasing access to information.<sup>62</sup> As the Honorable John G. Heyburn remarked to the Senate Appropriations Committee,

The use of automation and technology has been critical to allowing the judiciary to handle a continuously growing workload while staffing the courts at a level below that determined to be necessary by our workload formulas. This has allowed us to minimize overall spending increases while maintaining a high level of service to the public.<sup>63</sup>

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<sup>61</sup> *Id.* § 476.055(3).

<sup>62</sup> *See generally* Silverman, *supra* note 9. In some jurisdictions, litigants may save a substantial amount of money by filing documents electronically. *See id.*

<sup>63</sup> *Hearings Before the Subcomm. on Commerce, Justice, State and the Judiciary and Related Agencies of the Senate Appropriations Comm.*, 105th Cong. 389-416 (1997) (testimony of Hon. John G. Heyburn), *available in* 1997 WL 194346.