

## Chicago-Kent College of Law

---

From the Selected Works of Henry H. Perritt, Jr.

---

March, 1994

# Video Depositions, Transcripts and Trials

Henry H Perritt, *Chicago-Kent College of Law*



# CHANGING LITIGATION WITH SCIENCE AND TECHNOLOGY

## VIDEO DEPOSITIONS, TRANSCRIPTS AND TRIALS

*Henry H. Perritt, Jr.\**

### INTRODUCTION

Four existing applications of video technology have important implications for the future of the litigation process. Video depositions, widely permitted under federal and state rules of civil procedure, facilitate the transfer of information from pretrial events to the trial event. Presentation of demonstrative evidence on videotape or videodisk functions similarly. Video hearings, available in some criminal pretrial situations, make it feasible to have factfinding hearings, including trials, without all the participants being physically present.<sup>1</sup> Video transcripts, authorized in some states and in some federal courts on an experimental basis, facilitate the transfer of information from the trial event to appellate decisionmakers.<sup>2</sup> A combination of these existing applications results in a trial that is pre-recorded on videomedia—a concept that is gaining support.<sup>3</sup> In other words, using well-established technologies, one might make a transcript of the trial before the trial occurs.

Video formats, like other “paratexts,”<sup>4</sup> strengthen the oral and visual dimensions of law.<sup>5</sup> As video formats become more readily available, the

---

\* Professor of Law, Villanova University School of Law. The author appreciates thoughtful comments on an earlier draft by David R. Johnson and Richard J. Leighton.

<sup>1</sup> Video hearings facilitate virtual participation—eliminating the need for physical presence.

<sup>2</sup> Video depositions and transcripts also facilitate asynchrony—eliminating the need for simultaneous participation.

<sup>3</sup> The potential uses of the technology are not limited to the judicial system, but also can be used by federal, state, and municipal administrative agencies as well as in alternative dispute resolution.

<sup>4</sup> See Ronald K.L. Collins & David M. Skover, *Paratexts*, 44 STAN. L. REV. 509 (1992) [hereinafter *Paratexts*]. The authors include within their paratext definition: audiotaped confessions, video-recorded contract negotiations, and computer databases of cases, *id.* at 535-36 nn. 148-49, and videotaped wills, *id.* at 540-41 & n. 165.

<sup>5</sup> *Id.* at 535 & nn. 146-47.

law must determine whether electronic formats or paper formats with the same basic content<sup>6</sup> are primary or secondary.<sup>7</sup> Electronic formats contain more information and therefore are strong candidates to be the primary formats—as long as both formats are equally reliable.<sup>8</sup> The potential primacy of video records is not limited to litigation materials; it logically extends to video wills,<sup>9</sup> videorecordings of contract negotiations,<sup>10</sup> and videorecorded confessions.<sup>11</sup>

This Article begins by describing each of the four current uses of video technology in the litigation process: video depositions, demonstrative evidence on videotape, remote video hearings, and video transcripts. Then it describes how these uses of technology can be combined to produce prerecorded video trials. Next it considers specific issues that would arise if prerecorded video trials were to become a regular phenomenon. It concludes with an assessment of technological developments, and the legal changes necessary to make the video trial a practical alternative for advocates and judges.

## I. VIDEO DEPOSITIONS

A video deposition proceeds as a conventional deposition, but the record of the deposition is initially made on videotape rather than on a stenographic transcript. Video depositions are widely accepted.<sup>12</sup> The New

---

<sup>6</sup> Collins and Skover characterize print law as having the following attributes: closure, systematization, control, abstraction. *Id.* at 534-35 & nn. 145-46.

<sup>7</sup> *Id.* at 536-37 & nn. 155-56.

<sup>8</sup> Kentucky treats video transcripts of trials as the primary record. *See infra* notes 58-64 and accompanying text; *Paratexts, supra* note 4, at 537-40 & nn. 158-64.

<sup>9</sup> *See* IND. CODE ANN. § 29-1-5-3(c) (Burns 1989) (allowing videotape proof of proper execution of a will, intentions of testator, mental state or capacity of testator, authenticity of will, and other matters determined to be relevant to the probate of will); *Paratexts, supra* note 4, at 540-42 & nn. 165-72. On video wills, see video will paper available through the Internet via ftp to ftp.ming.law.vill or via gopher to ming.law.vill.edu or via telnet to ming.law.vill.edu, signing on as gopher with the requestor's Internet address as the password.

<sup>10</sup> Treating video records of contract negotiations *in para materia* with the contract itself could finally allow Corbin's expansive role for extrinsic evidence in interpreting contracts to prevail over Williston's more restrictive view. *Paratexts, supra* note 4, at 542 & nn. 173-77.

<sup>11</sup> *Paratexts, supra* note 4, at 543 & n. 182 (commenting favorably on Alaska case requiring electronic recording of police interrogations).

<sup>12</sup> *See, e.g.,* FED. R. CIV. P. 30(b)(2); U.S. DIST. CT. RULES S.D. TEX., RULE 5(E) (granting leave for videotape depositions in civil cases when the notice or subpoena so indicates); N.Y. CT. R. § 202.15 (McKinney 1993) (allowing video depositions conforming to technical, notice, and record-

York requirements for video depositions are typical:

1. The deposition begins by an on-camera announcement of the operator's name and address, the name and address of the operator's employer, the date, time and place of the deposition, and the party on whose behalf the deposition is being taken.
2. On-camera swearing of the witness.
3. Inclusion of an automatic time-date generator record showing the hours, minutes, and seconds permanently recorded on the tape.
4. A privilege afforded any party to have a conventional stenographic transcription made of the deposition at his or her own expense.
5. Certification of accuracy by the officer before whom the video deposition was taken, and an opportunity for the deponent to view the videotape and make objections to its accuracy.<sup>13</sup>

Under the New York rule, if objections are filed, the court must rule on those objections and provide instructions for editing of the deposition.<sup>14</sup> One commentator<sup>15</sup> urges that video depositions be covered by stipulations stating that the deposition officer has exclusive control over the video equipment, the camera angles and zoom shots, and the procedure for going off the record and that an on-camera oath by the video operator be

---

keeping requirements of rule). *See also, e.g.*, CAL. CIV. PROC. CODE § 2025 (West 1994); ILL. SUP. CT. R. 206(a)(2); MICH. CT. R. 2.315; MO. R. CIV. P. 57.03(c); NEB. REV. STAT. §§ 25-1240 (4), 1242 (1989); N.J. CIV. PRAC. R. 4:14-9; N.Y. CIV. PRAC. L. & R. § 3113(b) (McKinney 1991 & Supp. 1994); N.C. R. CIV. P. 30(b)(4); OHIO R. CIV. P. 30(b)(3); PA. R. CIV. P. 4017.1; TENN. CODE ANN. §§ 24-9-121, -125 (1980); TENN. R. CIV. P. 30.02; TEX. R. CIV. P. 202; VA. SUP. CT. R. 4:5, 4:7(a); WIS. STAT. ANN. §§ 885.40-.47 (West Supp. 1993). Some rules permit video depositions only by stipulation of all parties. Others, like the new federal rule, permit the party giving notice of the deposition unilaterally to specify video tape recording. *See* Steven W. Quattlebaum, *Effective Video Presentations at Trial: Put on a Good Show But Cut to the Chase - Part II*, 27 ARK. LAW. 56 (Summer 1993) (analyzing Rule 30(b)(4) of the [former] Federal and Arkansas Rules of Civil Procedure, and comparing with Uniform Audio-Visual Act, 12 U.L.A. 13 (Supp. 1992), and arguing in favor of unilateral designation).

<sup>13</sup> N.Y. CT. R. § 202.15(c) (notice); *id.* § 202.15(d) (beginning announcement, time-date generator, opportunity for witness to review); *id.* § 202.15(f) (certification).

<sup>14</sup> *Id.* § 202.15(g)(3).

<sup>15</sup> Quattlebaum, *supra* note 12, at 61-62 (draft stipulation for video deposition).

required that he or she will record the deposition accurately and comply with the stipulated procedures, procedures for objecting, and certification.<sup>16</sup> The commentator also urges that objections be made off the video record on a conventional stenographic transcript to avoid encumbering the video record with objections that must be edited out prior to trial.<sup>17</sup>

Witness preparation for video depositions is somewhat different from preparation for conventional depositions. Counsel and witnesses should be aware of the exaggerated effect of facial expressions, the distracting effect of hand gestures, and of unnecessary movement like rocking or swiveling in a chair, and the desirability of answering questions looking directly into the camera.<sup>18</sup>

The principal motivation for using video methods for depositions is the potential for use of the resulting videotape at trial. The main theoretical problem with trial use of video depositions—as with conventional deposition transcripts—is the rule against hearsay. It is increasingly possible to avoid the hearsay problems if there has been an adequate opportunity for cross examination as the deposition was taken, which presupposes adequate notice of the possibility that the deposition might be used at trial.

Use of video depositions at trial is governed by the usual rules allowing use of depositions at trial.<sup>19</sup> In fact, the revised Federal Rules of Civil Procedure express a preference for videotaped depositions in jury trials over stenographic records of depositions.<sup>20</sup> Under the Federal Rules, the deposition of a witness may be used at trial by any party for any purpose if (A) the witness is dead, (B) the witness is more than 100 miles from the place of trial or hearing or is outside the country, (C) the witness is una-

---

<sup>16</sup> *Id.* at 61-62.

<sup>17</sup> *Id.* at 59; *cf. supra* note 14 and accompanying text (New York rule).

<sup>18</sup> Quattlebaum, *supra* note 12, at 62-63.

<sup>19</sup> *Angelo v. Armstrong World Indus., Inc.*, 11 F.3d 957, 963 (10th Cir. 1993) (denying trial use of deposition testimony by physician because of insufficient efforts by plaintiff to enforce subpoena; thus witness did not meet unavailability criterion of Rule 32(a)(3)(D)). *See, e.g.*, N.Y. Ct. R. § 202.15(i); W. VA. RULES FOR KANAWHA COUNTY CIV. CTS. 12 (allowing presentation of video depositions to the jury with leave of court). MARK A. DOMBROFF, *DOMBROFF ON DEMONSTRATIVE EVIDENCE* §§ 124-51 (1983 & Supp. 1990) (videotape depositions and day in the life presentations); Richard J. Leighton, *The Use and Effectiveness of Demonstrative Evidence and Other Illustrative Materials in Federal Agency Proceedings*, 42 ADMIN. L. REV. 35 (1990). *Reber v. General Motors*, 669 F. Supp. 717, 720 (E.D. Pa. 1987); *Commonwealth v. Stasko*, 370 A.2d 350, 355 (Pa. 1977) (accepting video deposition testimony as almost as good as live testimony).

<sup>20</sup> FED. R. CIV. P. 32(c).

ble to attend or testify because of age, illness, infirmity, or imprisonment, (D) the party offering the deposition has been unable to procure the attendance of the witness by subpoena, or (E) exceptional circumstances exist.<sup>21</sup> Criterion (B) is not applicable if the absence of the witness was procured by the party offering the deposition; and depositions taken early without leave of court in which objecting parties were not represented and depositions taken subject to a pending motion for a protective order may not be used.<sup>22</sup> When deposition testimony is used for impeachment purposes it is not hearsay, and thus may be freely admitted. Of course, deposition testimony can be used at trial in any situation where the parties so stipulate as a part of the pretrial process.<sup>23</sup>

Costs typically are born by the party giving notice of the video deposition, and in New York, at least, those costs are taxable.<sup>24</sup> Typically, also, a conventional transcript must be made of any video deposition as part of the record on appeal.<sup>25</sup>

A trial, especially a jury trial, is in part a dramatic event.<sup>26</sup> Effective drama requires movement at the right pace. This is particularly true with videotape presentations because the format resembles television, with which virtually all jurors and judges are familiar. They are accustomed to professionally produced video, which does not require them to watch "talking head" shots for extended periods. Commentator Quattlebaum urges that when video depositions—at least talking heads—are used at trial that they be used in segments shorter than fifteen minutes. Videotapes of key portions of documents, of computer animation, of surgery,

---

<sup>21</sup> FED. R. CIV. P. 32(a)(3).

<sup>22</sup> *Id.*

<sup>23</sup> FED. R. CIV. P. 29.

<sup>24</sup> N.Y. CT. R. § 202.15(k).

<sup>25</sup> *E.g., id.* § 202.15(l) (videotapes remain part of the original record and are transmitted to the court of appeals, but audio depositions must be transcribed in the same way as other testimony and transcripts). *Contra* CAL. R. CT. 203.5 (court reporter need not transcribe electronic recording admitted into evidence).

<sup>26</sup> "[P]ersuasive techniques are the same whether a judge or jury is deciding . . . [i]ndeed, the theory and skill of persuasion may usefully be mastered by those in disciplines other than law practice. Historically, the study of rational and nonrational persuasion was the work of philosophers and dramatists before it became the province of lawyers." MICHAEL E. TIGAR, *EXAMINING WITNESSES* xii-xiii (1993). "Edward Bennett Williams wisely likened trials to dramatic presentations, in which the lawyer is producer, director, actor, and stage manager, but all within the quite demanding constraints of the evidence in the law." *Id.* at 1-2.

and of "days-in-the-life," can be very effective at trial.<sup>27</sup> Witness shots in the deposition should be accompanied by on-camera use of enlarged documents, photographs, models, video segments, computer graphics, and x-ray films and action or demonstrations by the witness to avoid boredom.<sup>28</sup>

## II. DEMONSTRATIVE EVIDENCE

Using prerecorded demonstrative evidence at trial is not a new idea. Personal injury litigators have been offering day-in-the-life movies and videotapes for a long time. With some of the multimedia and animation techniques discussed elsewhere in this symposium, the possibility of assembling the demonstrative evidence before trial, recording it on videotape and then showing the videotape to the factfinder is increasingly attractive to litigators and judges on efficiency grounds. There is ample authority under the Federal Rules of Evidence and the Federal Rules of Civil Procedure for that kind of trial presentation, as the cases analyzed in this section show.

Demonstrative evidence on videotape raises different legal issues compared with video depositions. The potential problem with demonstrative evidence is not so much hearsay as it is relevancy. A recent First Circuit case<sup>29</sup> summarizes the problem very well: "The test track replication shown on the driving tapes . . . is vivid and pertinent: one sees, in a way that no words could capture, the tie wheel flip out of alignment and the tire then dragging on the track. . . . A lay juror, asked whether a look at the tapes would be helpful, would likely answer yes."<sup>30</sup>

If it is so good then why keep it out? The court of appeals continues: "The concern lies not with use of tape or film (the issue would be largely the same if the jurors were taken to the test track for a live demonstration) but with the deliberate re-creation of an event under staged conditions [that may not match up sufficiently with the actual conditions]."<sup>31</sup>

---

<sup>27</sup> Quattlebaum, *supra* note 12, at 62-63; *Paratexts*, *supra* note 4, at 544-45 & nn. 185-90.

<sup>28</sup> Quattlebaum, *supra* note 12, at 63 (noting that witnesses must use visual aids effectively). The Quattlebaum article contains a useful bibliography of articles on videotape depositions and video trial materials, mostly from the 1970s and early 1980s. *Id.* at 65.

<sup>29</sup> *Fusco v. General Motors Corp.*, 11 F.3d 259 (1st Cir. 1993).

<sup>30</sup> *Id.* at 263.

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

The problem was not with hearsay but with Federal Rule of Evidence 403, the relevancy rule in which the probativeness of the evidence needs to be balanced against its prejudicial danger.<sup>32</sup> Proponents of demonstrative videos must be prepared to defend the accuracy of the demonstrations portrayed, to overcome relevancy objections. One approach is to put an expert on the stand and ask him to play the videorecorded demonstration. The expert then can be interrogated on the reliability of the video demonstration.

When either video deposition or prerecorded demonstrative evidence is used at trial, counsel also must have ready access to videotape counter readings where selected portions of testimony are recorded so that the appropriate portion of the tape can be located readily at trial.

### III. TELECONFERENCED TRIALS

Remote video links have been used to some extent to spare vulnerable witnesses the anxiety of live appearances.<sup>33</sup> A growing number of jurisdictions permit certain hearings to be conducted by video.<sup>34</sup> This technique is widely used in criminal arraignment and is explicitly authorized in at least a half dozen states in connection with child abuse cases to spare the sensitive witness the trauma of appearing in the courtroom.<sup>35</sup> It is increasingly acceptable in a wider variety of circumstances. The Virginia requirements for video hearings are typical: participants must simultaneously be able to see and speak to each other, and signals must be

---

<sup>32</sup> Compare *id.* at 263-64 (holding that videotape of simulated automobile component failure and resulting accident properly excluded because dramatic effect of videotape would likely override jury's awareness that simulated conditions did not correspond to accident conditions) with *Walls v. Armour Pharmaceutical Co.*, 832 F. Supp. 1505, 1508-09 (M.D. Fla. 1993) (denying motion for new trial; videotape deposition of child who later died of AIDS was admissible as deposition of declarant unable to be present or testify; pretrial review by judge resulted in editing out portions that went solely to child's pain and suffering).

<sup>33</sup> Cf. Note, *The Testimony of Child Victims in Sex Abuse Prosecutions: Two Legislative Innovations*, 98 HARV. L. REV. 806, 813-16 (1985) (describing statutes designed to allow videotaped testimony by abuse victims) [hereinafter Harvard Note].

<sup>34</sup> See, e.g., VA. CODE ANN. § 19.2-3.1 (Michie 1993) (allowing pretrial appearances before magistrate or judge to be by two-way video communication, accompanied by facsimile for documents).

<sup>35</sup> See Harvard Note, *supra* note 33, at 813-16; Steven M. Ramanoff, Comment, *The Use of Closed-Circuit Television Testimony in Child Sexual Abuse Cases: A Twentieth Century Solution to a Twentieth Century Problem*, 23 SAN DIEGO L. REV. 919 (1986) [hereinafter Ramanoff Comment].

transmitted live and in real time.<sup>36</sup>

The December 1, 1993 amendments to the Federal Rules of Civil Procedure made language changes to authorize remote video depositions, for example, by satellite.<sup>37</sup> The practice of remote video transmission reinforces the idea that it is acceptable, at least in some circumstances, for evidence to be presented to the factfinder through electronic means. Especially in rural states, where travel time is a significant transaction cost associated with physical presence at adjudicatory proceedings, remote video links should become a regular feature of the trial process.<sup>38</sup>

#### IV. VIDEO TRANSCRIPTS

Video transcripts use electronic technology to communicate the content of a live trial proceeding asynchronously from trial to appellate court.<sup>39</sup> A 1992 *Stanford Law Review* article reported that fifty-nine state and two federal district courtrooms use video systems to record trial proceedings to supplement or replace conventional transcripts.<sup>40</sup> Several United States courts of appeals have authorized video transcript experiments.<sup>41</sup> These experiments were authorized by the Judicial Conference of the United States in September, 1988.<sup>42</sup> Under the Fifth Circuit Rule, four separate video recordings must be made of each trial, one for retention by the clerk, one for submission to the court of appeals in the event of an appeal, and two for purchase by the public.<sup>43</sup> A backup record using conventional stenography or sound recording is required, but the rule explicitly prohibits release or transcription of the backup form of the record absent unusual

---

<sup>36</sup> See VA. CODE ANN. § 19.2-3.1(B) (Michie 1993). Other specifications for video hearings can be prescribed by the Chief Justice of the Virginia Supreme Court. *Id.* at § 19.2-3.1.

<sup>37</sup> FED. R. CIV. P. 30(b)(7) & advisory committee notes (effective December 1, 1993).

<sup>38</sup> See Ramanoff Comment, *supra* note 35, at 938.

<sup>39</sup> See *United States v. Marilao*, No. 90-00473-01, 1991 WL 193451 (E.D. Pa. Sept. 24, 1991) (denying post trial motions in criminal prosecution for immigration violations, noting trial record reviewed via videotape, and citing video transcript throughout opinion).

<sup>40</sup> *Paratexts*, *supra* note 4, at 512 nn. 14-15 and accompanying text. See also ARIZ. SUPER. CT. R. APP. PROC.-Criminal 2(a) (record of proceedings may be by videotape or any other method of accurately reproducing what occurred at the proceeding).

<sup>41</sup> See, e.g., Interim Joint Local Rule For Implementing the Video Recording Experiment in the Fifth Circuit, U.S. Ct. of App. 5th Cir. 28 U.S.C.A. App. IV (1993) [hereinafter Fifth Circuit Rule].

<sup>42</sup> Fifth Circuit Rule ¶ 2.

<sup>43</sup> Fifth Circuit Rule ¶ 2(a).

circumstances and on explicit judicial order.<sup>44</sup> Citations to the video record are to "the date and time the event occurred, as printed on the videotape."<sup>45</sup>

A larger number of courts of appeals provide for submitting videotape materials as appendices to conventional briefs.<sup>46</sup> Alabama has a permanent rule authorizing video transcripts in lieu of conventional transcripts when the parties, their attorneys, and the trial judge all consent in writing.<sup>47</sup> The specific procedures for making a video transcript are similar to those provided in the Fifth Circuit experimental rule.<sup>48</sup> Under the Alabama Rules, the Appellate Court may order the Administrative Office of Courts to transcribe any portion of a video transcript "whenever the court determines that a transcription is necessary for a decision in the case."<sup>49</sup>

California has prescribed in some detail the technical characteristics of hardware used to make official verbatim records for court proceedings.<sup>50</sup> There must be at least five cameras, eight cardioid (directional) microphones, at least two VHS videotape recorders capable of recording four channels of audio, a computer controlled mixer and switching system that automatically selects for the VCRs the signal for the video camera that is associated with an active, voice-activated microphone, production of a signal visible to the judge, the in-court clerk, and counsel that shows that the system is recording, a chambers camera and microphone which overrides the courtroom inputs, and two additional video cassette recorders to produce tapes for counsel.<sup>51</sup>

In some cases, a videotaped transcript can provide more information material to an appeal than a conventional transcript. In *State v. Rewolin-*

---

<sup>44</sup> Fifth Circuit Rule ¶¶ 2, 3(b), 5(c) (all prohibiting use of conventional transcripts).

<sup>45</sup> Fifth Circuit Rule ¶ 4(a) (giving as an example "tape 1; 12/02/88; 13:24:06").

<sup>46</sup> See, e.g., 5th Cir. R. 30; App. Fed. Cir. R. 30(j).

<sup>47</sup> ALA. R. APP. P. 14.

<sup>48</sup> *Id.* at Rule 3 (two sets of videotapes, one to be retained permanently by the clerk; and the other to be used in preparation of the record on appeal); *id.* at Rule 4 (prohibiting conventional transcripts when video transcript exists); *id.* at Rule 5 (citations and briefs must indicate number of videotape, month, day, year, hour, minute, and second at which reference begins, e.g. "T no. 1; 11/27/90; 14:24:05").

<sup>49</sup> *Id.* at Rule 6.

<sup>50</sup> See CAL. RULES OF COURT, Rule 980.6 (West 1994).

<sup>51</sup> *Id.* (also providing that cameras must conform to EIA standard, have 2000 lux sensitivity at F4 at 3200 degrees Kelvin so as to produce adequate picture with 30 lux minimum illumination and F1.4 lens).

*ski*,<sup>52</sup> a convicted murderer unsuccessfully argued that the trial judge committed error by failing to order a videotape record of the trial so that sign language translations of testimony by deaf mute witnesses could be reviewed on appeal. The court of appeals rejected the argument, on the grounds that appellate courts lack the expertise to resolve conflicts with respect to signing, noting that "[t]o the extent that a videotape of these proceedings is desirable, it is desirable for all trials."<sup>53</sup> A video transcript can make retrial of a matter more efficient by simply permitting the videotape to be viewed by a different decisionmaker.<sup>54</sup>

Of course, one advantage of video transcripts is that they cost much less than conventional stenography.<sup>55</sup> A perjury prosecution can be enhanced by the availability of a videotape transcript.<sup>56</sup> Collins and Skover acknowledged that the principal disadvantage with videotaped records is the existing state of technology for video playback.<sup>57</sup>

There have been some constitutional challenges to video transcripts.<sup>58</sup> In *Foster v. Kassulke*,<sup>59</sup> the plaintiff argued unsuccessfully in federal court that the Kentucky Supreme Court's policy of videotaping trials accompanied by a refusal to provide a conventional written transcript of the six week murder trial effectively negated her state court appeal rights. The six week trial produced a videotape record that was more than 132 hours long. "Appellant alleges that because of its length and the difficulty in using it to retrieve trial passages, it is not possible to construct competent briefs within the deadlines set by the court."<sup>60</sup> The state court did "require the state to provide [the] appellant with equipment with which to

---

<sup>52</sup> No. 88-2312-CR, 1989 WL 180652 (Wis. Ct. App. Nov. 7, 1989).

<sup>53</sup> *Id.* at \*2.

<sup>54</sup> See, e.g., *Lynch v. Lynch*, 737 S.W.2d 184, 186 (Ky. App. 1987) (vacating custody order because judge prepared order before hearing evidence, and ordering assignment to different trial judge for new findings and conclusions based on video transcripts and other record).

<sup>55</sup> *Paratexts*, *supra* note 4, at 539-40 n.162 (\$2.00 to \$3.00 per page for transcript versus \$15.00 for 6 hour videotape; national average of \$750.00 per day for conventional stenography versus \$15.00 per day for video, after initial system costs are met).

<sup>56</sup> See *Price v. Commonwealth*, 734 S.W.2d 491, 494 (Ky. App. 1987) (referring to video transcript of witness perjuring herself and rejecting argument that she did not know what she was doing).

<sup>57</sup> *Paratexts*, *supra* note 4, at 538-39 n. 160.

<sup>58</sup> See *Foster v. Kassulke*, 898 F.2d 1144 (6th Cir. 1990) (affirming dismissal of civil rights action by prisoner sentenced to death in Kentucky state court).

<sup>59</sup> *Id.*

<sup>60</sup> *Id.* at 1145 n.1.

view the videotape.”<sup>61</sup> The court of appeals affirmed the district court’s conclusion that abstention by the federal courts to state courts was appropriate under the doctrine of *Younger v. Harris*,<sup>62</sup> noting that counsel’s burden in using a long and cumbersome videotape record was not so extraordinary as to justify federal intervention in a state criminal proceeding.<sup>63</sup> The court did, however, note “problems associated with Kentucky’s policy of videotaping trials.”<sup>64</sup> The Kentucky Supreme Court apparently finds the video transcript procedure workable, suggesting that gaps in the videotape should be handled by notification to the court and inclusion of a narrative statement agreed upon by the parties.<sup>65</sup>

In *State v. Quintero*,<sup>66</sup> the defendant made two unsuccessful arguments with respect to the video transcript of his trial. First, the court rejected the argument that due process was violated because the video transcript is more cumbersome.<sup>67</sup> Second, the court rejected the argument that the videotape record did not include the cross examination of one witness, forcing him to rely on the memory of trial counsel to detect error. The court of appeals noted that a new trial might be ordered if a defendant can make a “*prima facie* showing of error . . . in the portions of the trial for which the record is allegedly missing,” and “show due diligence in attempting to find and supply a record for the purposes of appeal.”<sup>68</sup>

## V. THE PRERECORDED VIDEO TRIAL

The legal system has growing experience with the use of information technology to eliminate the need for everyone to be present at the same place for a trial or other factual hearing.<sup>69</sup> For the most part, these experiences have involved the giving of notice, planning conferences, and the

---

<sup>61</sup> *Id.* at 1146 n.2.

<sup>62</sup> 401 U.S. 37 (1971).

<sup>63</sup> 898 F.2d at 1147-48.

<sup>64</sup> *Id.* at 1148 n.5 (referring to earlier identification of problems in *Dorsey v. Parke*, 872 F.2d 1163 (6th Cir. 1989)).

<sup>65</sup> *Barnett v. Commonwealth*, 828 S.W.2d 361, 364 (Ky. 1992) (Wintersheimer, J., dissenting from reversal of rape conviction because of exclusion of evidence of prior sexual activity by complaining witness).

<sup>66</sup> 823 P.2d 981 (Or. Ct. App. 1991) (affirming, in material part, conviction for attempted murder and other crimes).

<sup>67</sup> *Id.* at 983.

<sup>68</sup> *Id.*

<sup>69</sup> See *supra* part III regarding video criminal appearances and telephone hearings.

presentation of legal arguments rather than presentation of factual evidence. Undoubtedly, the desire for demeanor information has discouraged the use of remote appearances for factfinding, but as the use of video technology and transcripts in the deposition context increases, counsel and courts should become more comfortable with the utility of basic video recording and display technology in factfinding. As this occurs, prerecorded trials become a realistic possibility. For example, one state trial judge recently made these comments:

As a Philadelphia judge, I have conducted video arraignments and mandated and conducted "Prerecorded Videotape Trials" in asbestos cases, where all the testimony had to be presented on videotape, and only opening statements and closing arguments were live. That has been done for many years by Judge James McCrystal in Sandusky, Ohio. Judge McCrystal started with reel-to-reel videotape.<sup>70</sup>

In the future, the pretrial and trial process can work as follows: a comprehensive pretrial order, similar to the initial pretrial order under present federal civil Rule 16, will schedule the deposition of all witnesses either party wishes to call, subject to control by the court under the same standards used to control the actual trial process to promote efficiency and reduce repetition. These witnesses will be deposed on videotape. Objections, of whatever form, will be made as the deposition proceeds and be part of the video record. The depositions will differ from present practice only in the attention given by the sponsoring counsel to on-camera effectiveness, and in the greater intensity of cross examination by opposing counsel, somewhat similar to what occurs now for "trial depositions" as opposed to "discovery depositions."

At the final pretrial hearing, the trial judge (or other judicial officer supervising the pretrial process) will hear argument and resolve objections to admissibility, producing a final pretrial order that will designate those portions of the videotape depositions that are inadmissible. The legal process at this point, except for its focus on the video record and further video production activities, will be exactly like ruling on a series of motions *in limine*. After the final pretrial hearing, counsel working with appropriate

---

<sup>70</sup> Judge Richard B. Klein, *The Future is Now in Video*, FUTURE LAW DISCUSSION, available on Internet @PUCC.PRINCETON.EDU:OWNER-FUTUREL@VM.TEMPLE.EDU Mon Mar 7 19:48 EST 1994. Message-Id: 9403080048.AA12536@ming.law.vill.edu.

video production and editing personnel, will produce the trial program, weaving together the admissible segments of the videotaped depositions, probably on microcomputer-controlled videodisk. Although this final production stage is not dependent on any particular technology, it is likely that a desktop computer executable trial script, keyed to portions of the raw video record, will selectively present the video signal from portions of a videotape or video disk format to video display devices. Each counsel would have broad discretion within the final pretrial order to arrange the presentation of that counsel's case in the manner desired. If disputes arise during the final production stage, they can be resolved by the trial judge on an ad hoc basis.

Pretrial video productions are not limited to witness testimony; they also can include a variety of simulations, other demonstrative evidence, and views of actual facilities and phenomena. The video-program approach to trials will enhance the possibility that the factfinder will see evidence closer to the actual events giving rise to the controversy rather than depending on indirect witness recollections and descriptions.

The factfinder—jury, administrative law judge, or trial judge—will simply watch the program and make a decision. Counsel and other representative and judicial personnel need be present only to monitor the viewing.

Nevertheless, merely because it is *possible* to move virtually all of the fact gathering and fact presentation activity from the trial to the pretrial stages by the use of video technology does not mean it is desirable to do so. Judge Klein continues:

I certainly wouldn't want to do it [prerecorded or remote trials] in a first degree murder case. The problem we have and will probably continue to have is the increase in volume and decrease in funding for the courts. As far as I am concerned, that is a major reason for future planning. We can't just keep going along with business as usual. Something is going to have to go. What do we want to preserve? I feel much more strongly about face-to-face trials in criminal cases than in intersectional accidents or sentencing procedures. The demo I saw of the new Apple Power PC—using the Motorola/IBM/Apple chip—makes much better use of video conferencing—a cigarette pack sized camera hooks into the computer. It's much easier and cheaper than wiring every police station in the city.

Will the technology drive the system or the system use the technology? Once doctors learned they could have their testimony videotaped rather than waiting around in Court, "live" appearances became the exception rather than the rule.

I remember going to a county in the Northern tier of Pennsylvania where they were short a judge to fill in for a criminal list. It was terrific in October when the leaves were changing. It didn't seem so great to go back for sentencing in a blizzard in February. Necessity breeds invention, so, with everyone agreeing, I sentenced someone to five years in jail for arson by telephone. Never heard anything more, so I guess it worked! That was a low-tech solution.

But what do we want? Do we want a holographic courthouse? Do we want juror jurors [sic] to watch from home, and deliberate by teleconference? Where can we meet our volume/fiscal problems by technology, but where must we resist the temptation just because the technology is there?

I draw the line on video trials in criminal cases unless the prosecutor certifies the sentence cannot be more than a year in jail.<sup>71</sup>

Analysis of the desirability, however, should focus on real problems and not illusory ones. For example, the security of the video trial program against tampering is not a problem in this context, although it may be a problem for other applications of electronic formats.<sup>72</sup> Due to the adversarial character of the pretrial and trial process, material alterations are likely to be readily detected and objected to appropriately.

## VI. THE ISSUES

### A. *Relationship Between Pretrial and Trial Events*

The growing use of video depositions at trial illustrates the potential of video technology to change some of the fact gathering and factual presentation activity from a single-event trial to a multiplicity of pretrial events. The phenomenon can be expected to accelerate due to the growing cost and burden of single-event trials and due to improvements in commer-

---

<sup>71</sup> *Id.*

<sup>72</sup> See, e.g., MICHAEL BAUM & HENRY H. PERRITT, JR., *ELECTRONIC CONTRACTING PUBLISHING & EDI LAW* ch. 6 (1991) (reviewing relationship between technological risks and legal responses).

cially available technology which make it easier to integrate video records of numerous pretrial events with each other and with judicial decisions on admissibility at trial. Eventually, it will be feasible to package video materials from pretrial events into a single program that will be played for the factfinder; the litigator will then become a producer.<sup>73</sup>

Professor Richard Marcus has explained how modern civil procedure is moving away from the single-event trial tradition of English common law and toward the English equity model which involves multiple decisions based on materials assembled out of court.<sup>74</sup> The formal acceptance of this trend is exemplified by recent amendments to the Federal Rules of Civil Procedure making summary judgment more broadly available to resolve issues piecemeal before trial and creating a more elaborate pretrial process that reinforces simplification of issues for trial and facilitates the planning of issue presentation.<sup>75</sup> The trail has been blazed for greater use of technology in this trend by the granting of power to use video technology for depositions and growing flexibility in the use of deposition testimony at trial.<sup>76</sup> The prerecorded video trial is a way of bringing together the common law tradition of a single trial event and the more fragmented approach of English equity.<sup>77</sup>

More significantly, the video-produced trial, like other means of diluting the single-event trial of the common law, changes the psychological dynamics of the trial process. It is possible that the less stressful setting of video depositions (as opposed to in-court testimony) might make more testimony available and change the dynamics of settlement incentives.<sup>78</sup> Settlements also may be promoted when counsel and client can see the whole trial beforehand.

---

<sup>73</sup> See John B. Mitchell, *What Would Happen if Video Taped Depositions of Sexually Abused Children Were Routinely Admitted in Civil Trials? A Journey Through the Legal Process and Beyond*, 15 U. PUGET SOUND L. REV. 261, 263 (1992) (questioning "whether the advocate of the future will be more of a film editor than an orator or more of a visual than an oral story teller," but stating that the Article does not address this question).

<sup>74</sup> Richard L. Marcus, *Completing Equity's Conquest? Reflections On the Future of Trial Under the Federal Rules of Civil Procedure*, U. PITT. L. REV. 725 (1989).

<sup>75</sup> *Id.* at 739-45.

<sup>76</sup> See *supra* part I.

<sup>77</sup> See Marcus, *supra* note 74, at 745-49.

<sup>78</sup> See Mitchell, *supra* note 73, at 288-99 & nn.70-95 (arguing that greater admissibility of video depositions will make more testimony available and create more judgments and settlements for civil plaintiffs in child abuse cases).

Frequently, experienced litigators believe the best presentation of their cases requires a kind of holistic experiential coupling of the factfinder with the evidence. Moreover, many judges believe it is better to resolve most evidentiary objections in the richer context of the trial presentation of evidence rather than in a comparatively bloodless pretrial motion in limine proceeding. When the case is carved up into a number of pretrial summary judgment hearings and determinations, this holistic character is lost. The party benefitting from analytically discrete consideration of issues benefits from the use of the technology. On the other hand, advance preparation of a video trial package permits the experiential, holistic coupling of factfinder with evidence, even though the witness appearances were not continuous as they occurred. Moreover, the technology permits an advocate to tell the story from her own client's point of view, enhancing holistic persuasiveness. Finally, witness veracity can be tested by juxtaposing videoclips of the same witness made at different times.

While video recording technology preserves much more information than written transcripts of testimony or audio recordings, it does not preserve all the information available from live contact with a witness. Also, it may exaggerate certain aspects of witness conduct. This is a well-recognized phenomenon in comparing live theater with motion picture productions. There will, therefore, be some distortion of the evidence by presenting it to factfinders through a video program. There is room for argument about the acceptability of this distortion. Obviously, some distortions of reality are mandated by the rules of evidence excluding certain materials that have probative value but are laden with unacceptable prejudicial effect. There also are bona fide efficiency questions that cannot be answered without more experience. Using a video production for the actual trial almost certainly will reduce the time required of the factfinder, who does not have to remain available but idle while evidentiary objections are dealt with at side-bar or in chambers. Additionally, participation in a judicial proceeding will be much less burdensome on witnesses whose video depositions can be scheduled at the convenience of the witness rather than the convenience of the court system.

On the other hand, significantly greater burdens will be placed on counsel and judicial officers during the pretrial process. The burdens will be even greater than in a system having elaborate pretrial proceedings with conventional technology because, in the video-produced trial system,

the pretrial process must deal with every piece of evidence taken, not only with scheduling the taking of it and with discrete problems in the execution of the pretrial plan.

In addition, the investment in hardware, software, and technology-support personnel will not be trivial. The court, all counsel, and any separate deposition facilities must have appropriate playback equipment, which likely will include sophisticated editing, linking, and execution software and hardware as well as a simple video tape deck or video disk drive. The production facility, at least, and maybe each counsel, must have video editing equipment which, under current technology, would be the most expensive investment. Such equipment must permit easy and quick replay, slicing, and script-altering steps, combining digital and analog storage technologies. Multimedia application software and hardware will be appropriate.<sup>79</sup>

### *B. Relationship Between Appellate and Trial Events*

Greater use of electronic formats can change the relationship between trial and appellate courts.<sup>80</sup> Video transcripts of trials enhance the information available to appellate decisionmakers about the trial process. No longer must an appellate reviewer simply guess about nonverbal indicators of witness credibility; she can look at and listen to the video transcript. This possibility may tempt appellate decisionmakers to intrude more into areas that traditionally have been left to the discretion of trial judges. On the other hand, knowing more about what the trial judge saw does not necessarily mean a higher reversal rate; it may reduce the reversal rate to the extent that judges at different levels treat the same trial phenomena similarly.

More information means greater potential burdens on the person receiving the information. An appellate decisionmaker watching a video transcript is more or less limited to witness speaking speed, around 100 words per minute. People can read written transcripts about five times that fast. It follows that the universal use of video transcripts could reduce

---

<sup>79</sup> See *infra* part VII.A.1.

<sup>80</sup> *Paratexts*, *supra* note 4, at 546-49 & nn. 195-205 (noting that videotapes may tempt appellate judges to second guess credibility of witnesses but also may allow appellate judges to give more deference to essentially correct trial court decisions).

appellate court efficiency by some 80% for that part of appellate activity involving detailed review of the factual record. To the extent that the availability of the video transcript draws appellate courts into more review of the factual record than at present, the efficiency loss would be greater.

A serious efficiency problem under past technology applications, likely to be relieved as technology improves, is the cumbersomeness of searching for particular parts of a video record. Video tapes are inherently sequential in character and a particular event can be retrieved only by fast forwarding or rewinding the tape to a particular place. Random access to segments of the video record is necessary to mitigate this cost. Such access is now available from videodisks. Burdens on counsel to prepare appeals based on video records have been litigated,<sup>81</sup> but these burdens also will be reduced by the same changes in technology.

### C. *Accessibility*

Any increased reliance on technology in the dispute resolution process raises concerns about whether the cost of the technology will have the effect of making the dispute resolution system less accessible to certain segments of the population. The seriousness of this problem depends on the cost of the technology. As desktop computer capability is more widely diffused throughout the bar<sup>82</sup> and as multimedia capability becomes a regular feature in most desktop computers, the problem should decline. Videodisks with periodic keys to bar-coded evidentiary segments can help greatly. Of course, the costs that are relevant are not only the costs of video playback technology, but also the costs of high-quality video recording and editing technology. Equally important in assessing the accessibility problem is knowledge of the technology. If separate support personnel are required at every step, the costs of the technology increase enormously. On the other hand, if law schools keep pace with technology's potential, new generations of practicing lawyers will graduate knowing what they need to know to work with this new technology. They will be capable of making informed judgments about what matters should be delegated to support personnel depending on the circumstances of particular cases. The

---

<sup>81</sup> See *supra* part IV.

<sup>82</sup> See Ronald W. Staudt & Rosemary Shiels, *Where Have All the Computers Gone? Survey Checks Out Law Firm Usage*, A.B.A. J., May 1993, at 82 (results from joint ABA and Chicago-Kent survey on the use of desktop computers in law firms).

challenge for law schools is not just promoting technological literacy, but also teaching a new kind of trial advocacy, one that includes video rhetoric.

#### *D. Reliability*

Machines malfunction, just as people make mistakes. As video technology comes into wider use, the incidence of problems is likely to increase. Video transcripts may have gaps because certain trial events were not recorded. Some or all of a preproduced trial program may turn out to be temporarily or permanently garbled and thus useless for the factfinder. The communications links planned for a virtual trial may be lost, making it impossible to complete the trial on the date and time planned. These are not disabling possibilities, however.<sup>83</sup>

The legal system has developed strategies for responding to mistakes in lower technology contexts. Witnesses or important evidence sometimes are unavailable at trial though planned for by court and counsel. Continuances and other mitigating steps are available and can be flexibly tailored to the needs of the particular problem. Human-prepared transcripts are flawed or unavailable with distressing regularity.<sup>84</sup> Appellate procedures accommodate these instances by requiring the preparation of a secondary record about what happened that does not appear on the official record.<sup>85</sup> Judicial video systems should be designed for reliability under approaches similar to those required by the California rules for preparation of video transcripts,<sup>86</sup> but the possibility of an occasional malfunction can be dealt with adequately under existing approaches.

---

<sup>83</sup> *Accord* Mitchell, *supra* note 73, at 271-72 & nn. 21-28 (video depositions fairly present witness evidence because of opportunity to cross examine and because, as prior recorded testimony, they are among the most reliable of the forms of hearsay).

<sup>84</sup> *See* U.S. v. Wilson, 16 F.3d 1027 (9th Cir. 1994) (failure of court reporter to prepare transcript violated due process); U.S. v. Johnson, 732 F.2d 379 (4th Cir. 1984) (two-year delay in preparing transcript); Monden v. Welborn, 1992 WL 91766 (N.D. Ill. Apr. 23, 1992) (detailing insuperable difficulties in getting transcripts from court reporters); Rheuark v. Shaw, 477 F. Supp. 897 (N. D. Tex. 1979) (9-month delay in preparing transcript).

<sup>85</sup> Barnett v. Commonwealth, 828 S.W.2d 361, 364 (Ky. 1992) (gaps in video record can be handled by narrative statement of the evidence presented).

<sup>86</sup> *See supra* part IV.

*E. Efficiency*

The cost and benefits of greater use of video technology were considered in the sections addressing the relationship between trial and pretrial process, and between appellate and trial courts. More experience and explicit analysis of data is necessary before any conclusions can be drawn about efficiency. It is possible that video technology will prove to be the most efficient way to handle certain kinds of cases, and less efficient than low-technology processes for other kinds of cases. Accommodating the intensity of the legal process to characteristics of a type of case is hardly new. Virtually all court systems have different levels of procedure for matters of different character.<sup>87</sup>

*F. Effectiveness*

Video technology, like all information technology transfers information across time and space. The effectiveness of information technology depends on its accuracy and completeness in representing real world phenomena. There can be little question that video technology more completely represents legally significant phenomena than written transcripts. Its comparative accuracy depends on the capabilities of the recording, storage, copying, editing, and playback systems used. An important technology issue is the loss of quality that occurs as each copy of an analog video recording is made.

## VII. SUITABILITY FOR DIFFERENT KINDS OF TRIALS

This section synthesizes the analysis of factors and offers a hypothesis about the types of cases in which prerecorded video trials are desirable. There are some real advantages, when expert witnesses are unavailable on the trial date or when litigation costs are dominated by expert witness fees that are unnecessarily incurred when experts must make themselves available for trials that get recessed and rescheduled. Additionally, video trials offer real advantages in communicating scientific and technical evidence to factfinders in ways the factfinders can understand. The traditional litigation context is a poor way to teach people about regression analysis or DNA comparisons. Videotape opens up some new opportunities and new

---

<sup>87</sup> Compare jury trial right for serious criminal cases with absence of right for minor cases.

advantages for scientific and technical evidence as a process of education for the factfinder. The best way to educate people in modern society about using new technology is by a full use of the complete range of audiovisual technology. This is much easier when audiovisual materials are prepared in advance by means of modern technology. The results are better; the process is more efficient.

The hypothesis is that prerecorded trials are attractive in cases involving significant demonstrative evidence, and in which many experts will testify. This appears to be the source of the most significant effectiveness and efficiency advantages. On the other hand, in cases involving individual parties instead of institutional parties, the advantages are fewer. When the actors and the individual parties are the witnesses and when the important questions involve the veracity of witnesses, everyone involved may lose by using prerecorded video technology. In such cases simple, traditional trials are probably preferable. However, it may be true that video techniques might be appropriate in some simple trials, because the stakes are lower and participants might be more willing to experiment.

## VIII. WHAT'S NEEDED

### A. *Technology*

The technology exists to integrate video recordings with desktop computer based script management. The "multimedia" excitement in desktop computing includes this phenomenon although bandwidth and storage demands for full motion video drive multimedia products toward audio clips, very short video animation, and still graphics management. Beginning with digital representations, desktop computer multimedia tools can obviate some of the problems associated with videotape. Editing software that permits manipulation of video objects is highly desirable. More active demonstration of these commercial implementations of multimedia technology involving integration of lengthy full motion video presentations and desktop computer control is desirable in the judicial and administrative agency context. Demonstration is not enough, however, unless the results of the demonstrations are diffused widely in the profession. Thus, it is as important to publicize and analyze demonstrations that already have occurred as it is to conduct new demonstrations. Such critical analysis should be geared to the issues raised in this article, in particular reliability and efficiency issues.

### *B. Specifications for Operational Systems*

Perhaps using the California rule as a starting point, bar committees, courts, and demonstrators should try to articulate technical specifications for operational video systems for both trial presentations and the preparation of trial transcripts. The combination of deposition and transcript specifications define the requirements for a real-time virtual trial system. A challenge in writing good operational specifications is the difficulty of making them sufficiently concrete without limiting them to the state of technology at a particular time. One useful approach is to articulate the "black letter" specification in functional terms with commentary that gives technology specific examples of systems that currently meet the functional specification. The California standards for preparation of trial transcripts are good examples of functionally oriented specifications, with the possible exceptions of the reference to VHS as a tape format and reference to videotape to the exclusion of other means of recording video signals.

### *C. Statutory and Rule Changes*

It is difficult, in the abstract, to prescribe statutory changes to enable the use of video technology; the needs of statutory law are driven by the "paper requirements" of existing law. It is possible, however, to sketch the general legal framework within which video technology can function, leaving refinement of statutory proposals to those familiar with the statutory status quo in particular jurisdictions. Also, alternative dispute resolution permits parties to use and learn from video trial technologies without any rule changes. For the longer run, institutions with rulemaking power for the courts (usually the supreme court in jurisdictions with unified judicial systems) should be authorized to make rules that permit the use of video technology for virtual trials, trial transcripts for appeal, and preprogrammed trials.

Four bodies of rules need attention: rules of civil procedure, rules of criminal procedure, rules of evidence, and appellate rules.

The rules of civil procedure should authorize any party who already has authority to take a deposition to take it in video formats, following the example of the rules analyzed in part I, *supra*.

The pretrial rules should authorize, but not require, the judge assigned

the case to supervise the preprogramming of a comprehensive video presentation for the factfinder, as discussed in parts IV and V, *supra*.

The rules of evidence should allow the use of video materials at trial unless a party objecting makes a showing of unreliability or prejudicial tendency compared to a live presentation of the same evidence.<sup>88</sup>

The rules of civil and criminal procedure should authorize remote transmission of a video signal in any pretrial proceeding unless good cause is shown for denying such remote presentation, with the same safeguards discussed in part III, *supra*.

The rules of appellate procedure should authorize the use of video transcripts in any appellate court equipped to access such a transcript randomly.

Enactment or adoption of all of these proposed legal changes will not ensure the sweeping acceptance of video technology. Instead, it provides a legal environment within which technological, efficiency, and cultural forces can shape the adoption of the technology in particular courts, for particular cases, and by particular judges and counsel.

### CONCLUSION

Prerecorded video trials offer important efficiency gains for the legal system. In the near term they would be more appropriate when a high proportion of the total trial evidence involves experts and demonstrative evidence, and less appropriate when a high proportion of the trial evidence involves individual witnesses whose veracity is challenged. In the longer term, video recordings may well become the dominant mode of trial presentation. Only modest rule changes are necessary to permit the legal system to take full advantage of the efficiency gains offered by modern video technology, and ADR provides an umbrella for immediate use.

---

<sup>88</sup> Mitchell, *supra* note 73, at 273-81 & nn. 29-50 (depositions of child abuse victim testimony are admissible only when the child is "unavailable," but the possibility of trauma from testifying may satisfy the unavailability requirement under FED. R. EVID. 804(a)(4). Also, the exceptional circumstances exception in FED. R. CIV. P. 32(a)(3)(E) may be satisfied, or the possibility of loss of memory or "freezing" and becoming uncommunicative on the witness stand may justify a deposition to perpetuate testimony).

