

Working Group on Evidence Presentation Systems Summary of Discussion

1. The broad range of technologies that fall into the category of “evidence presentation systems” make it difficult to design a research agenda that addresses all of them. Potential research directions can be broadly divided into studies examining technology v. no technology and studies examining differences between various levels of technology.
2. Many aspects of courtroom technology can be examined empirically, including effectiveness (i.e., does something presented electronically have a greater effect on the jury if the lawyer operates the equipment or if an assistant does?), fairness (i.e., it is fair for one side to use technology when the other side does not?), and the role of visual displays (i.e., does the use of the evidence camera to display exhibits help focus the attention of the courtroom?). The research question of most interest to lawyers, perhaps, is that of effectiveness. Determining in what situations the use of technology will have the greatest impact on the jury can help lawyers make decisions about how to present their cases.
3. Surveys of the following populations provide one method for examining the effects of evidence presentation systems.
 - **Judges:** Because the presence or absence of technology in a courtroom is often dependent on the preferences of individual judges, it will be helpful to probe judges’ attitudes about technology in their courtrooms, and how those attitudes change over time. Such data can be collected at judicial conferences.
 - **Lawyers:** Lawyers’ attitudes towards the technology will largely determine whether they decide to make use of available technology, and can be assessed by providing vignettes of different types of cases and asking lawyers what technology they would use, and in what manner they would use it.
 - **Jury:** Post-trial questionnaires may be the most efficient way of assessing juror attitudes toward the technologies used in a particular trial and in the courtroom in general. It is important to keep in mind the increasing prevalence of computer technology outside the courtroom may create the expectation that similar technologies will be used in court.
4. Additional research can address technology-specific issues. For example, researchers can test whether jurors are more likely to remember an argument supplemented with PowerPoint than one delivered with no visual aids, or whether the judge’s use of the kill switch increases jurors’ memory for evidence displayed on monitors or projection screens.
5. Evidence presentation software, like that of Microsoft Powerpoint and Corel Presentations, provides a way to present evidence and illustrative aids electronically and simultaneously to everyone in the courtroom. It may be used to present images of inanimate objects, photographs, graphics, and documents to the jury, and “slide shows” to summarize such evidence may

be used in making opening statements and closing arguments to the jury. Little is known, however, about how using the software affects juror decision-making and trial outcome, nor about whether use of the software affords an advantage to the user. Its use may affect the outcome of trial because 1) attorneys are forced to better organize their case; 2) it allows a higher degree of interaction (at multiple sensory levels) between the attorney and the jurors, and 3) it helps present the facts in a story-based fashion. Studies could examine how the use of presentation software affects participants' *understanding* and *acceptance* of the attorney's arguments and investigate the interaction between quality of the digital presentations and strength of the case. They could also examine participants' feelings regarding the use of presentation software and other technologies in the courtroom (e.g., was it useful, engaging, overwhelming?)

6. We must keep in mind the difficulties inherent in conducting large scale research on courtroom technology. The nature of the research imposes constraints beyond the traditional ones (i.e., the use of the convenient but less diverse undergraduate population as participants v. the more realistic but harder to obtain community sample), including the expense of the technology, and the difficulties of structuring a valid experiment that adequately addresses the numerous confounds (e.g., case complexity, familiarity of scenario, ability of attorneys).
7. The use of evidence presentation systems in the courtroom alters the role of the jury. Instead of passive decision-makers, jurors may, when presented with visual displays and other fruits of technology, become more active participants. This shift must be taken into account, and its potential advantages and disadvantages examined.
8. The results of research examining the effects of evidence presentation systems and other courtroom technologies can be used in determining admissibility. One of the biggest concerns about admissibility is the risk of unduly prejudicing the jury. Empirical data can help judges distinguish the risks of prejudice between, for example, a gory 8 x 10 inch photograph passed from juror to juror and the same photograph blown up to enormous proportions on a projection screen.
9. The interest in evidence presentation systems extends beyond their use in the courtroom itself. Evidence shown via technology during the trial may be requested by the jury during deliberation. Research on how technology in the jury room affects the deliberation process would help judges and rules committees make informed decisions about whether it should be permitted.