This article explores the favorable and unfavorable impact demonstrative evidence may have on jurors at trial and the effective ways in which trial lawyers may use demonstrative evidence to educate and persuade jurors about their theory of the case.

I. Introduction
Jurors today are awash in modern technology and accustomed to its uses in all kinds of settings and at all times. Media reports have discussed the impact of trials during which jurors were observed texting, tweeting, or researching issues on the Internet in violation of the judge’s instructions and long-established trial rules. As a result, judges have repeatedly felt compelled to declare a mistrial—referred to in one report as an outcome that “might be called a Google mistrial.” In another notorious instance, a juror not only posted updates on the case on Twitter and Facebook, but alerted his readers to a “big announcement,” coming on Monday. No mistrial was declared in that case and the defendant was found guilty. Lawyers for the defendant subsequently used the juror’s conduct as grounds for appeal.

While new technology lends itself to abuse by jurors, jurors have come to expect its use at trial. Lawyers hoping to engage and persuade jurors of their theory would do well to employ various forms of media when presenting their case. For one, scientific studies have shown that demonstrative exhibits can assist in making the jury understand relevant facts and data. Yet, as advertising has taught us, images and visual messages have the potential to manipulate the emotions of jury members. Visual presentations may send subconscious messages to jurors, creating a significant risk that jurors reach verdicts based on emotionalism and leaps in logic rather than on the facts in evidence. Effective advocacy, therefore, requires an attorney to understand both the potential benefits and the risks associated with sophisticated visual tools. In doing so, the attorney must formulate persuasive arguments for the admission and exclusion of certain forms of demonstrative evidence.

II. What Is Demonstrative Evidence and How Does It Affect the Brain?
In general, exhibits are useful at trial to educate jurors. They may serve to summarize large amounts of information or to amplify a lawyer’s arguments. Demonstrative evidence comes in many forms, be it in the physical presence of the client at trial sitting next to her attorney, or in the form of a sophisticated piece of animation.
that reconstructs an accident at issue. Jurors in the courtroom use all of their senses—visual, auditory, olfactory—to absorb, analyze, and understand the facts of the case they are required to decide.

Lawyers need to be aware that studies of the brain, and research on learning, have shown that people learn best when all their senses are engaged. The brain is most active when it is stimulated in various ways. In practical terms, this means that jurors at trial will absorb more information and be more receptive to the attorney’s message when the case is presented in a multimedia format, rather than by strict narration and recitation.

Neuroscientists have also found that the brain enjoys puzzle-solving. In ancient times, the rhetorical device of creating syllogisms—where an audience is presented with two independent propositions from which it is meant to reach a desired conclusion—was used to sway public opinion. In the context of trial, this may mean that jury members who are shown “before and after” photographs will try to fill in the blanks and supply the missing data to understand the story.

III. The Futility of PowerPoint

PowerPoint is one of the least effective tools with which to educate jurors. Brain research and common experience tell us that presenting an audience with slides filled with words while reading that same information out loud is one of the quickest ways of losing the audience’s attention. The brain is unable to effectively absorb the written message and spoken information simultaneously. While the audience tries to read the slides, it fails to pay attention to the speaker. Because reading the visually presented words and listening to those same words engages the same portion of the brain through its verbal channel, the viewer/listener experiences an overload of verbal information. As a consequence, his brain ignores a certain portion of the conveyed information.

A study by scientists at University of California at Santa Barbara examined some of the most brain-friendly instructional strategies to enhance learning. It showed that people learn best when presented with narration and exposed to a visual representation.4 Put differently, if an attorney wants to augment the effect of a point, she can do so by speaking (or voice-over) while also showing a graphic by way of a slide or video or film clip. The brain is able to absorb both types of information by processing them through separate channels. It will process what it hears through its verbal channel and what it sees through its visual channel. What’s more, the verbal information will enhance the visually conveyed message and vice versa. More information is retained. However, when a viewer/listener is asked to read information presented on a graphic and at the same time listen to the presenter, as is the case with most PowerPoint presentations, her brain shifts focus rapidly between what it reads and what it hears. Critically, in the back-and-forth, valuable information becomes lost to the audience.

Knowledge of the interaction between brain and eye lends itself to manipulation by advocates in their efforts to sway jurors to adopt the presenter’s point of view. The Rodney King trial is an example of how the defense, with the help of visual technology, managed to create the impression that King, rather than the officers accused of beating him, was the aggressor. Counsel for the defendant officers slowed down the well-known film clip that depicted the beating; while individual stop-action pictures taken from the visual recording showed King raising his arm or crouching, an expert for the officer defendants commented on the officers’ right to defend themselves. Defense counsel also created still photographs that reduced King to a white-marker outline. King became an abstraction, while the officers remained recognizable persons. By way of the defense’s visual deconstruction of the incident, defense counsel managed to portray King as an aggressor whose behavior invited the officers’ violent reactions. Once that image took hold in the jurors’ brains, it became fixed and permanently influenced how the jurors saw the video recording. It ultimately determined their assessment of the case in favor of the defendants.

IV. Demonstrative Evidence and the Rules of Evidence

a. Oregon Law

Under Oregon law, courts may not exclude an exhibit received for demonstrative purposes from the use and consideration by jury during deliberation.5 Making a demonstrative piece of evidence available to the jury creates
a number of risks, including the jury's assigning it undue significance at the expense of other relevant information received, or the jurors' uncritical surrender to the emotional impact of that particular piece of evidence. However, once an exhibit has been received into evidence, the court does not have the discretion to preclude it from going to the jury room regardless of whether it is “demonstrative” or not.5

As a general rule, visual exhibits—photographs, films, and videos—must be authenticated and shown to be relevant in order to qualify for admission into evidence. Any exhibit must be a “fair and accurate” representation of what existed at the time of the event or when it was prepared. While a visual need not be identical to the original, it must be similar in the aspects that are relevant to an issue in the case. The degree of variance may be taken into account in terms of what weight must be assigned to a piece of evidence rather than in terms of its admissibility.

Under Oregon law, the admission or exclusion of demonstrative exhibits is left to the discretion of the trial court.7 However, the court may not arbitrarily exclude evidence; this means that evidence that is shown to be material and relevant to an issue in the case must be received into evidence barring a statutory reason for excluding it.8 Oregon Rule of Evidence (“OEC”) 401 defines relevance. “Relevant evidence” means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.

The admission of a piece of evidence may be challenged pursuant to OEC 403, which provides for the exclusion of relevant evidence on grounds of prejudice, confusion or undue delay. Specifically, OEC 403 states that “[a]lthough relevant, evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay or needless presentation of cumulative evidence.” Counsel may not introduce demonstrative evidence that is calculated to produce strong emotions in jury members such that they will decide complex questions of law on the basis of personal feelings rather than the facts introduced at trial.9

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property. The prosecution countered the defense’s argument by playing a redacted version of the defendant’s statement—omitting his statements about masturbation—in conjunction with a photograph depicting the deceased girl as found in the woods. What the jury heard and saw was the accused admitting to panic coupled with troubling images of the dead girl. Furthermore, the prosecution was able to introduce a transcript of Skakel’s statement highlighting the incriminating words in red, as well as a voice-over reading the words from a transcript.

Numerous law review articles have analyzed the impact of the prosecutor’s closing argument based on its sophisticated and emotionally charged multimedia summation of the case. Critics of the outcome have argued that Skakel’s conviction resulted from prosecutorial overreaching and served as an example of the courts’ failure to rein in attorneys seeking to advance their cases by exploiting the power of visual tools. In contrast, supporters have argued that in making a multimedia evidence presentation, the prosecution simply used the most effective method to educate the jury about its theory of the case.

Skakel’s first cousin, Robert Kennedy, wrote a well-researched and much-discussed analysis of the trial. He argued that Skakel’s conviction was the product of an overzealous prosecution, but he also recognized that the outcome may have been inevitable given the prosecution’s brilliant and largely unchallenged multimedia summation.

Critics of Skakel’s defense point to the attorney’s “complete failure to anticipate the logic of the prosecution’s visual arguments.” They suggest that instead of simply arguing the evidence should be excluded because it was selective or prone to create improper subliminal messages, the defense might have pointed to brain research showing

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the problematic interplay in the jurors’ minds between the gruesome visual and the audio information received. When the jurors saw the gruesome pictures while simultaneously hearing the accused’s admission of panic, their brains adopted the conclusion created by the prosecution’s syllogism—Skakel was panicked because he committed the murder.

Based on common sense rather than evidence, jurors could be led to conclude that a person who has murdered is likely to experience panic once he understands the nature of his action. Applying this reasoning, because Skakel felt and admitted to panic, he must have murdered the girl. Although Skakel’s panic could be explained in other ways, once the jurors were exposed to the image of the dead girl and the incriminating statements conveyed by way of the voice-over, they were no longer receptive to other explanations.

Appellate courts also have been concerned with a jury’s subjection to evidence that speaks to jurors’ emotions but is not amenable to challenge by cross-examination or a counter-offer of proof. This concern is illustrated by a personal injury case in which the plaintiff cried out in pain in the courtroom. In deciding the case, jurors may remember these improper demonstrations more clearly than the facts. As a consequence, jurors may uncritically decide in favor of the proponent of the evidence.

As noted above, the Supreme Court discussed how potentially damaging information may be limited within the context of the Federal Rule of Evidence 403. Similar to OEC 403, FRE 403 provides that otherwise relevant evidence may be excluded if the probative value of the evidence is substantially outweighed by the danger of unfair prejudice, confusion of the issues, misleading the jury, or considerations of undue delay, including wasting time or needless presentation of cumulative evidence. Under Old Chief, trial courts must weigh the probative value of a defendant’s stipulation to the fact of a prior conviction against the potential for unfair prejudice when jury members are being presented with facts pertaining to the defendant’s prior conviction.

Rule 611 of the Oregon Evidence Code grants trial courts discretion to control the mode and order of interrogation and presentation. Specifically, subsection (1) provides that “[t]he court shall exercise reasonable control over the mode and order of interrogating witnesses and presenting evidence so as to make the interrogation and presentation effective for the ascertainment of the truth, avoid needless consumption of time and protect witnesses from harassment or undue embarrassment.”

Trial attorneys must be aware of the difficulty in challenging the improper admission of evidence. Under Oregon law, evidentiary rulings by the trial court will only be reversed if the appellant can show an abuse of discretion on the lower court’s part. On review, the
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We were successful in countering this evidence by arguing that, given his loss of hearing, our client did not actually hear the informant's statement. An expert audiologist informed the jury about our client's hearing loss which was the result of his experience during the Vietnam War. The expert further made jurors understand what scientific tests had shown regarding our client's hearing impairment and, with the help of a recording, was able to replicate for jurors what the client could in fact hear. Because we were able to show that our client did not hear the informant's statement, his response was rendered meaningless. The jury found our client not guilty.

b. Ninth Circuit Law
As a general rule in the Ninth Circuit, illustrative exhibits are not permitted in the jury room for use during deliberations and their admission may constitute reversible error in some circumstances. In Cox, the defendant objected to the admission of three mockup bombs into the jury room during deliberations—none of these prototypes was an exact replica of the actual destructive devices used in the bombings, but rather a mockup using the same ingredients and an expert's knowledge of how those types of bombs are generally made. The court stated that trial courts should refrain from allowing into the jury room evidence that was received for illustrative purposes only; in the case at bar, however, the court found that the judge's limiting instruction coupled with defense counsel's opportunity to cross-examine neutralized any abuse of discretion which would have mandated reversal.

c. Use of Composite Exhibits
Demonstrative exhibits are useful tools to break down complex data with the use of a simple graphic or design. As a general rule, the only requirements for the introduction of composite exhibits are that 1) the underlying data has been made available to the other parties; 2) the exhibit accurately summarizes the otherwise voluminous documentation; 3) the composite exhibit is introduced as evidence; and 4) the underlying documents are admissible evidence in their own right.

d. Practice Tips
It is trial counsel's job to establish the main issues of the case and develop a compelling visual presentation to assist the jury in assessing the case. Brain research on learning has proven that multimedia presentations that engage the jurors' different senses will create long-lasting impressions that interact with long-term memory. At the same time, given today's sophisticated technology, jurors may be manipulated by demonstrative evidence more than ever before. Therefore, it is critical that practitioners analyze and deconstruct their opponents' visual exhibits with the same degree of care they apply to verbal exhibits. Finally, practitioners should remember that at times simple tools may be as effective as fancy foot-
graphs or charts in front of the jury and allowing an expert to analyze and explain the visual may be all that is needed to help the jury understand the issues and ultimately rule in your favor.

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1 See, e.g., John Schwartz, As Jurors Turn to Web, Mistrials Are Popping Up, N.Y. TIMES, March 18, 2009 at A1.
2 Id.
3 Id.
6 Id. at 727, 731–32. As the court in Cober noted, to avoid its being sent to the jury room, counsel may ask that the item of evidence be marked as available for demonstrative purposes only. Id. at 734, n.9.
8 Id. at 312.
9 See id. (holding that “[t]he evidence may be excluded because it may produce undue prejudice, confuse the jury, or if for some other specific policy reason the harm which might result from its reception may outweigh the probative value of the evidence”).
15 Jewel, supra note 11, at 280.
17 See Old Chief, 519 U.S. at 190–91.
19 See, e.g., State v. Brown, 297 Or. 404 (1984) (stating guidelines for determining relevance or probative value of proffered scientific evidence: 1) general acceptance in field; 2) expert’s qualifications and stature; 3) use made; 4) potential for error; 5) existence of specialized literature; 6) novelty; and 7) reliance on subjective interpretation).
20 United States v. Cox, 633 F.2d 871, 874 (9th Cir. 1980) (citing United States v. Abbas, 504 F.2d 123 (9th Cir. 1974) and United States v. Krasn, 614 F.2d 1229 (9th Cir. 1980)).
21 Id. at 873–874.
26 Cal. Code Civ. Pro. § 425.17. The 2003 amendments contain express carve-outs for the publication and entertainment industry, making it clear that any restrictions in the amendments do not apply to those groups. Id. at (d).
27 Hilton v. Hallmark Cards, 599 F.3d 894, 908 (9th Cir. 2010).
29 Id. (quoting Weinberg v. Feisel, 110 Cal. App. 4th 1122 (2003)).
30 Id.
31 See Note 3, supra.