



OHIO
ASSOCIATION for
JUSTICE
TRIAL LAWYERS HELPING PEOPLE

2016 Winter Convention

Plenary Session

Put Your Trial into A Storyboard- to Focus, Shape and Win Your Case

Cliff Atkinson

San Francisco, CA

USING GRAPHICS TO PERSUADE: THREE STEPS TO CLARITY AND FOCUS¹

Cliff Atkinson
2120 University Ave.
Berkeley, CA 94530
(510) 559-0865
cliff@cliffatkinson.com

These days it's no longer a surprise to see computers, television monitors, data projectors, document projectors, and presentation software in courtrooms across the country. As the computer revolution continues to drive down the cost of media technologies and make them more accessible to more people, it makes sense that these tools would find their way into the legal domain as well. And it's not a moment too soon, because the expectations of media-savvy jurors continue to increase.

From the moment they wake up until they go to sleep, jurors are immersed in a steady stream of graphics displayed on television, movie screens, billboards, magazines, and even cell phones. And not only do most people live and breathe in this increasingly media-intensive culture; today many people create the graphics themselves. With a digital camera or video recorder to capture the graphics and the software to edit them, the ability to create graphical media is now within reach of an ever-wider population. So, if a media-savvy juror walks into the courtroom fluent in the language of media, he or she expects a legal case to be presented using graphics too.

How is this rapid influx of media technologies impacting a legal culture that is steeped in the tradition of the spoken word and printed text? And, more specifically, how should trial attorneys understand the technological change and what can they do with these new tools to help them win a case? Every new technology offers new promise to help people to do something better, and at the same time it presents the potential for problems. Presentation technology is no exception. It can dramatically enhance the ability of an attorney to present a case, and at the same time it can create unintended consequences.

For an example of what can go wrong with technology, people who present information with technology in a corporate context have been using these tools for decades. It might be expected that after this extended time period, their methods for presenting have been honed to a high degree of effectiveness. But that is simply not the case. A growing chorus of voices roundly criticizes the prevailing "bullet point approach" that defines corporate presentations. Well-respected journalists,² critics,³ and business people⁴ have written extensive articles and essays that describe the related communication and cultural problems at length.

In many ways, the prevailing methodology that corporate presenters use for graphics has failed. By studying what has gone wrong, attorneys can make sure they do not repeat the mistakes as they choose their own methodology to these new technologies. When an attorney chooses an effective methodology for graphics in the courtroom, the results can be dramatic. For example, according to the news reporters who were there, the way presentation visuals were used in the

opening statements of *Ernst v. Merck*⁵ were “frighteningly powerful”⁶ and presented a “stark choice”⁷ to jurors in contrast to the defendant’s approach.

But it wasn’t just the reporters who found the graphical presentations effective. After delivering the multimillion dollar verdict to the plaintiff in August 2005, the jurors in that case said that the defendant’s case was simply unclear, according to *The Wall Street Journal*.⁸

Jurors who voted against Merck said much of the science sailed right over their heads. “Whenever Merck was up there, it was like wah, wah, wah,” said juror John Ostrom, imitating the sounds Charlie Brown’s teacher makes in the television cartoon. “We didn’t know what the heck they were talking about.”

One of the reasons that the plaintiff’s case was so much easier to understand was the way graphics were used to persuade. All trial attorneys have the same potential graphical power at their fingertips.

In order to find a successful approach to persuade with graphics, you can learn from the mistakes of corporate presenters, and follow three steps that will help you to persuade jurors. The first step begins with aligning the information with the way the mind works before you start creating graphics. Step two is to storyboard your words and images to manage the cognitive load of the jury in chunks. And step three is to visually highlight the levels of the cognitive pyramid that forms the basis for your presentation.

I. Step One: Align Your Information with the Way the Mind Works

The most important thing you can do when you start planning graphics to persuade is to not think about graphics at all, but to focus instead on how the human mind works. No matter what graphical elements or tools you use, you must first understand how the mind processes them in order to know what to do with them. Without that underlying understanding, your graphics are flying blind.

Many corporate presenters assume that the minds of an audience are passive vessels, waiting to be filled with information. This underlying assumption makes the job of the presenter easier, because all he or she has to do is to simply create a sequence of visuals, show them to the jury, and then his or her job is done. This is an error in thinking that attorneys can easily correct by choosing an alternate view that aligns with the research.

For 13 years, cognitive psychologists have been studying the use of words and pictures to help people to learn. One of these is Richard E. Mayer, Ph.D., of the University of California at Santa Barbara, who was named by a national survey as the most prolific researcher in the field of educational psychology. Dr. Mayer explains in his seminal book *Multimedia Learning* (Cambridge University Press 2001) that the best way to understand learning is *active processing*,

which assumes that people's minds are not passive vessels, but rather active processors of information.

By assuming that the mind actively processes information, according to Mayer, anyone who presents with words and pictures must take into account the fundamentals of human memory.

Understand the core problem—the limits of working memory

According to researchers, there are three types of human memory, each with its distinctive characteristics. The first is sensory memory, which is the capacity of the eyes and ears to scan the environment and take in a potentially unlimited amount of visual and verbal information. The next type of memory is long-term memory, which is where the mind stores patterns that help remember, predict, and use information. This is also potentially unlimited in its capacity. But between sensory and long-term memory is yet another type of memory with different capacity—short-term memory, also known as working memory.

Unlike sensory and long-term memory, working memory is severely limited in its capacity. A well-known study in the 1950s placed the number of chunks of information that working memory can hold at seven, plus or minus two.⁹ The most recent research puts the number at three to four.¹⁰ If the capacity of a juror to hold attention is limited to three to four chunks of information at any time, it presents a significant challenge to any attorney who is using words and pictures to persuade.

But taking the limitations of short-term memory into account, how exactly do you structure information to align with the mind?

Write a persuasive story structure to hold attention through a trial

A fundamental problem with presenting information throughout the duration and complexity of a trial is that the short-term memory of a juror can easily lose track of the big picture. A powerful tool you can use to overcome that is with a story structure. Stories have been around for thousands of years, and continue to be one of the primary ways that people understand information. A story is easy to grasp—a juror needs no user manual, quick-start guide, or academic course in order to understand a story.

Using a specific type of story¹¹ can help you to make sure that you engage the jury from the beginning of the trial to the end—a persuasive story structure. Inspired by classical elements of a three-act story along with modern screenwriting techniques, the persuasive story has been tailored for nonfictional presentations such as trials. As with most stories, it begins with a setting that describes the context for the broader narrative; for example “We are here today because Jane Smith is dead.” But a key spin on this story begins when you define the protagonist, or main character, as the jurors themselves.

Making the jurors the main character of a presentation puts them at the center of the action. Usually in a fictional story, the story is about somebody else, and you have to infer or relate your own experiences to that fictional character. But with a persuasive story structure you make the jury members the actors in this experience, by saying, for example, “You are detectives in this case, on a mission to solve the crime.” This heightens their engagement and makes them feel like they are at the center of the action, which in fact is the reality of the situation. Next comes the energizing force of the story—defining the problem.

People who write about screenwriting agree that a story is essentially a problem-solving tool. That’s because there is always an “inciting incident” that kicks off a story and sets up a situation where the main character has to resolve the situation. At the start of a persuasive story, you introduce a problem—for example, “Jane Smith died of a rare cancer known to be caused by a chemical produced by Company X. We think Company X knew about the dangers of the chemical, and didn’t tell anyone. You get to follow the clues and find out exactly what happened.” Everybody loves a good puzzle, and by presenting a problem at the beginning of your story that the main character has to solve, you heighten engagement because the jurors naturally want to solve the puzzle.

In addition to making the jurors the center of the action, a persuasive story structure also provides a memorable framework to hold the entire case in the minds of the jurors. It is very easy for anyone to lose track of what the entire case is about, let alone the details. A story with a clear theme can help the jurors relate the case to something they already know, and thereby increase the chances that they will remember it. By applying a persuasive story structure, you can find the clarity and the narrative arc that maintains focus for the jury through the entire trial.

Arrange rational information in a hierarchy to align with memory

Once you have set up the story, the next step is to organize the bulk of the information that you want to communicate into a structure that helps people understand it most efficiently—a hierarchy. According to Jim Hawkins in his book, *On Intelligence* (Henry Holt & Co., LLC 2004), the way that memory is structured is according to a “branching hierarchy.”¹²

An effective way to organize information into a hierarchical structure that parallels the structure of memory is to use a logic tree technique. This approach begins with making a statement such as “Find Company X liable for negligence for three reasons,” and then describing the top three reasons “Why?” or “How?” it is true. In this case it might be, “Company X knew the dangers, Company X hid the dangers, and Jane Smith died because she did not hear the truth from Company X.” Next, you would take each of the three top-level points, and write the three to four reasons “Why?” or “How?” they are each true. Then, you continue asking the same questions of the sub-points until you have completed three or four levels of detail.¹³

Structuring information in this hierarchical way creates a powerful organizing system for the ideas of your case, in the shape of a pyramid. This structure keeps the high-level themes and concepts at the top of mind, and shifts the detailed evidence in your case to the bottom of the

pyramid. By placing your most important ideas at the top, you have found a way to identify the most important ideas that you want to communicate to the short-term memory of jurors. By introducing these top-level ideas first, you clearly pave the way for the next ideas to come without confusing the limited short-term memory of the jurors with too much detail at the wrong time.

It is difficult for jurors who are presented with a mass of details to figure out what the meaning is. But, if you present the meaning first from the higher levels of this cognitive pyramid, then you assist them in understanding information faster because they then see the details only after they understand their relevance and meaning.

This process of identifying the main ideas of the case also helps your legal team to collaborate on finding the best structure, and it develops an internal discipline of distilling the main message points of the case. When you have the main points in the top of your own mind, you will be more likely to help the jurors to keep it in the top of their minds as well. And you will find that the more time that you spend thinking about what the top-level thematic elements are in your story, the more you will be able to refine it and to be able to come up with a compelling, clear, and memorable narrative.

Use the pyramid as a cutting tool to keep the story focused and precise

It's not infrequent for cases to comprise thousands, if not millions, of documents and other pieces of evidence. If you were to show everything to the jurors, they would quickly become cognitively overwhelmed and would be less likely to remember the right things you intended.

Appreciating the limitations of short-term memory, as well as the time constraints of the case, it is often a difficult call to decide what to present and what to keep. Using the pyramid to select from all the information you could possibly present helps to focus what you should include in an opening or closing statement, and throughout the trial.

Using the pyramid to select fewer but more important documents helps you to highlight them and give them names that make them very memorable to the audience.

The pyramid also helps you precisely determine the context and relationship for every piece of information that you present. It becomes an organizing tool and a road map for presenting and emphasizing the key elements in your persuasive case.

II. Step Two: Storyboard Words and Images in Chunks

Once you have a clear sequence and hierarchy for the ideas in your case, the next step is to turn them into a storyboard. The concept of a storyboard comes from Hollywood, where filmmakers use sketches of scenes to begin to visualize how a screenplay will look when it is filmed. Creating a screenplay helps to turn words into pictures, and brings everyone on the team literally onto the same sheet of paper so that time and resources are not wasted.

You can tap into the collaborative, visualizing, and time-saving features of a traditional storyboard, and take the technique to a new level, by using Microsoft Office PowerPoint to create a storyboard that forms the underlying infrastructure for your graphics. This easy-to-use software is already on the desktops of most attorneys and provides an effective way to manage words and pictures through the course of a trial. The best point to start using it is when you have a finished story in hand and are ready to prepare it for the graphics to come next.

Send the story to a storyboard to begin managing your multimedia document

Most people begin using PowerPoint with preformatted design templates—a feature that formats every slide with the same graphical background so that bulleted lists of text look consistent. Although this is a common and easy-to-use approach, it also guarantees that every slide will look the same and will quickly create visual tedium for the jurors. Instead, leave the backgrounds as they are with their existing white backgrounds, and add a single idea from the story you created in the form of a headline at the top of each PowerPoint slide.¹⁴

When you complete the process, you should literally have a storyboard where you can see all of the frames in a single glance in PowerPoint's Slide Sorter view. Here you can understand the story by reading each headline from one frame to the next. From a cognitive perspective, you are seeing the complexity of your case broken up into small parts that will make digesting them much easier for jurors.

You should be able to easily rehearse the entire story using only the simple white slides with the headlines at the top. Even without graphics, the power of your clear persuasive story will quickly become evident.

Plan both words and images together to align with dual-coding theory

When people start working in PowerPoint, they normally begin by designing the slides in Normal View, where they start adding text and graphical elements. But before you begin designing the frames of the storyboard, it's important to visit a lesser-known view of PowerPoint first to ensure you plan words and graphics properly.

One of the assumptions of researchers in educational psychology who study multimedia presentations is the concept of dual coding. According to Mayer,¹⁵ this assumption is that the

mind is receiving information in a multimedia presentation through two channels—a verbal channel and a visual channel.

When you look at a frame of your storyboard in PowerPoint from its Notes Page view, you see a slide area at the top which appears on screen, and a notes area at the bottom which does not appear on screen. The slide area corresponds with the visual channel and the notes area corresponds with the verbal channel. By seeing each frame of the storyboard in Notes Page view as having a visual track and an audio track, you can be sure that you plan for the two channels at the same time.

Planning for dual coding is important because research indicates that improper accounting for the two channels can depress learning. In a study conducted by Mayer, the same information was presented to two groups. One group heard narration and saw the same narrated information presented in text form; while the second group heard the narration but did not see the redundant text. The second group, which heard the narration without the redundant text, experienced a 28 percent increase in the ability to remember it, and a 79 percent increase in the ability to apply it.

Planning both graphics and words together in Notes Page view can ensure you do not overload the visual and verbal channels by keeping the graphics on screen, and the spoken words off screen. This prevents the tendency to load up the screen with too much information that will inevitably overload the cognitive capacity of jurors.

Plan to present only one verbal-visual chunk at a time to respect short-term memory

Since short-term memory can only handle three to four chunks of information at any one time, you have to carefully manage what you are showing at any moment, using both words and images. When you view all of the frames of your storyboard in PowerPoint's Slide Sorter view, you see all of your ideas broken up into chunks, with one idea per frame. Keeping the frames small in informational size ensures you expose short-term memory to only one coordinated set of verbal-visual chunks at a time.

This aligns with the research that shows that people learn better when information is in digestible chunks. According to Mayer's research-based segmentation principle, groups that experienced information in smaller chunks learned better than people who did not.¹⁶ With one idea per frame of your storyboard, you align with this principle.

Another benefit of keeping one idea per frame, and planning words and pictures together in Notes Page view, is that you keep your spoken narration in sync with a series of graphics that animate over a sequence of frames. Research shows that people learn better from multimedia presentations when narration is in sync with animated sequences,¹⁷ which you ensure you accomplish when you work with your PowerPoint storyboard.

III. Step Three: Highlight the Frames of the Storyboard According to Levels of Importance

Now that you have solid cognitive grounding for your information in the form of a persuasive story structure, and a storyboard that has set up each frame for both graphics and spoken words, the final step is to add graphical elements to each frame. The best way to begin is with the pyramid structure you use to create a hierarchy of ideas for your story. The same hierarchy you used for the structure is the same hierarchy you use to design the key frames of your storyboard in a three-step sequence.

Highlight the top level to make the story themes pop out in the sequence

When you create a hierarchy of ideas in a pyramid form, you identify the top-level ideas that define the case at the top of the pyramid. These three or four ideas each form a frame in the storyboard, and these are the first frames you should focus on illustrating. Use a combination of layout, color, and graphical elements in order to make them pop out from the rest. There should be no doubt when a juror sees these frames that they are the most important frames in the sequence of ideas you present.

You can accomplish this by using simple techniques such as adding a red color box to create a split-screen layout that divides the frame in half vertically. This is a distinctive layout that will immediately command attention. Any text boxes that are placed over color boxes should always feature high-contrast colors to ensure they are clearly visible to jurors. An alternative technique is to use a full screen photograph on each frame to carry a theme across all of these top-level slides.

Another technique to make these storyboard frames stand out is to repeat them at specific points within the sequence of the storyboard. This helps jurors to rehearse the main ideas in their own minds, increasing the likelihood that they will remember them. For example, after you make your first main point and follow it with a sequence of sub-points, repeat the frame with the first main point to summarize what you just covered before moving on to the second main point.

There is a wide range of ways to use graphical elements to ensure that jurors know where they are in the story in relation to the main points. One of these is to add a gray navigational bar to the bottom of each frame in the storyboard, featuring a word or two that denotes each section. The gray color and horizontal placement ensure the bar does not call attention to itself, and highlighting each key word in a contrasting color when it appears in the corresponding section of the story helps jurors to find their place.

Highlight the next level to introduce sections to come

After using graphics to establish the first level of cognitive importance, move on to the second level. When you use visual techniques to denote the shift from the top level to the next, you signal to the jurors that you have moved on to a new section.

As you review the frames of the storyboard that correspond with the second level of importance, you may choose to use a similar layout style as the first level. For example, you may apply the split-screen technique used in the first-level example above, except change the color of the box to blue instead of red. This sends a visual cue to jurors that they have entered a new part of the presentation. Using related styles across a level provides denotes levels of importance, as well as provides variety that is needed to keep jurors engaged through the presentation.

Beginning the design of each frame with a headline, and then placing a simple graphic next to it, is supported by a research-based principle that explains that people learn better when graphics are located next to text.¹⁸

Highlight the bottom levels to present the detailed evidence

The next way that you can visually highlight the levels of the cognitive pyramid is to visually highlight the lowest level of importance. On this level you may simply use a horizontal layout on the frames, with a headline at the top and the graphical element below it. This allows ample space for the visual display of evidence, including documents or quantitative charts and graphs. This simple layout format ensures that all of the detailed information you are going to present focuses on the evidence, which is always explained by a clear headline on the frame.

Although it may be tempting to add “cool” and razzle-dazzle graphics to the frames of your storyboard, it turns out that they can actually harm the ability of an audience to understand the information you are trying to communicate.¹⁹ When you add more gradients, colors, and detail to any graphical element, you increase the visual cues that the short-term memory of jurors has to process. By increasing the amount of visual information you direct the attention of the jurors to the screen, instead of to you and the meaning of the frame.

Instead, a simple graphical style will have the most effective learning impact on jurors. Beginning with a PowerPoint storyboard with a simple white background and a headline helps you to create a simple foundation that keeps a clear graphical focus on any single frame, as well as across frames. Once jurors quickly digest the information, their attention will naturally return to you. Keeping the short-term memory of the jurors clear of distraction will help them, and you, to focus on the clarity of your story.

IV. Conclusion

There's no doubt that new presentation technologies are quickly changing traditional courtroom culture. Where trials may have been purely verbal experiences in the past, with perhaps an evidence board thrown into the mix, today, jurors have expectations for a much more sophisticated blend of words and images. But before adopting a pure Hollywood approach, there is a significant body of research related to multimedia presentation that can help you to ensure that jurors can both remember and apply the information you intend.

Although people who present in a corporate context have been using technological tools for decades, a growing chorus of critics points out that they are simply not effective. By learning from their mistakes, you can dramatically increase the power of your own graphical presentations, whether for opening or closing statements, or during the rest of a trial.

Using graphics effectively means much more than tacking a "visual aid" onto your existing verbal presentation. Because of the complexity and difficulty of producing visuals, and the cognitive limitations of jurors, you have to adopt a new way of outlining ideas that will get your verbal and visual messages across more clearly. This new approach involves a classical story structure that is adapted to nonfictional presentation, a logic tree technique that helps you to create a hierarchy of information, and a storyboarding approach inspired by Hollywood.

You can apply this unified design approach to all the media that you use during a trial. That's because when you start with understanding the way the mind works, the underlying approach applies to all media. Designing for clarity of short-term memory applies across the board, whether you are using PowerPoint, flip charts, document projectors, or other tools. Applying clear thinking and design principles across all your materials ensures coherence of your story and focus of attention. It also prevents distraction on the part of your internal team with many different people creating many different informational elements, as well as among jurors.

When you align your communication approach with the human mind and plan for both spoken words and projected graphics together, not only can you keep jurors engaged by using graphics to persuade; you can also inform and educate them. With that underlying approach and the three steps described in this article, you will be on your way to more persuasive—and winning—graphical presentations.

¹ Reprinted with permission from ATLA's 2006 Winter Convention Reference Materials. Copyright © 2006 ASSOCIATION OF TRIAL LAWYERS OF AMERICA. Further reproduction of any kind is prohibited. For more information, please contact ATLA Education at education@atlahq.org or via phone at (202) 965-3500, ext. 612 or (800) 622-1791.

² Ian Parker, *Absolute PowerPoint*, NEW YORKER 76-87 (May 28, 2001).

³ EDWARD R. TUFTE, *THE COGNITIVE STYLE OF POWERPOINT* (Cheshire, CT: Graphics Press LLC 2003).

⁴Brad Feld, *The Torturous World of PowerPoint*, Feld Thoughts, June 22, 2004, at http://www.feld.com/blog/archives/2004/06/the_torturous_w.html.

⁵No. 19961-BH02 (Dist. Ct. Brazoria Cty., Tex., filed May 24, 2002).

⁶Roger Parloff, *Stark Choices at the First Vioxx Trial*, FORTUNE (July 15, 2005).

⁷Alex Berenson, *Contrary Tales of Vioxx Role in Texan's Death*, N.Y. TIMES, July 15, 2005.

⁸Heather Won Tesoriero et al., *Merck Loss Jolts Drug Giant, Industry in Landmark Vioxx Case*, WALL ST. J., August 22, 2005.

⁹George A. Miller, *The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information*, 63 PSYCHOL. REV. 81-97 (1956).

¹⁰Cliff Atkinson, *The Science of Making Your PowerPoint Memorable: Q&A with Nelson Cowan*, at www.sociablemedia.com/articles_cowan.htm.

¹¹For a detailed description of the methodology described in this article, see CLIFF ATKINSON, BEYOND BULLET POINTS: USING MICROSOFT POWERPOINT TO CREATE PRESENTATIONS THAT INFORM, MOTIVATE AND INSPIRE (Microsoft Press 2005).

¹²JEFF HAWKINS, ON INTELLIGENCE 44 (Henry Holt & Co., LLC 2004).

¹³This approach is inspired by Barbara Minto's approach described in *The Minto Pyramid Principle: Logic in Writing, Thinking and Problem Solving* (Minto International 1996), which has been used by top business management consultants around the world for 30 years.

¹⁴See ATKINSON, *supra* note 10, at ch. 4.

¹⁵RICHARD E. MAYER, MULTIMEDIA LEARNING 46 (Cambridge Univ. Press 2001).

¹⁶Cliff Atkinson & Richard E. Mayer, *Five Ways to Reduce PowerPoint Overload*, at 11, available at http://www.sociablemedia.com/PDF/atkinson_mayer_powerpoint_4_23_04.pdf.

¹⁷MAYER, *supra* note 14, at 96.

¹⁸*Id.* at 81.

¹⁹*Id.* at 113.