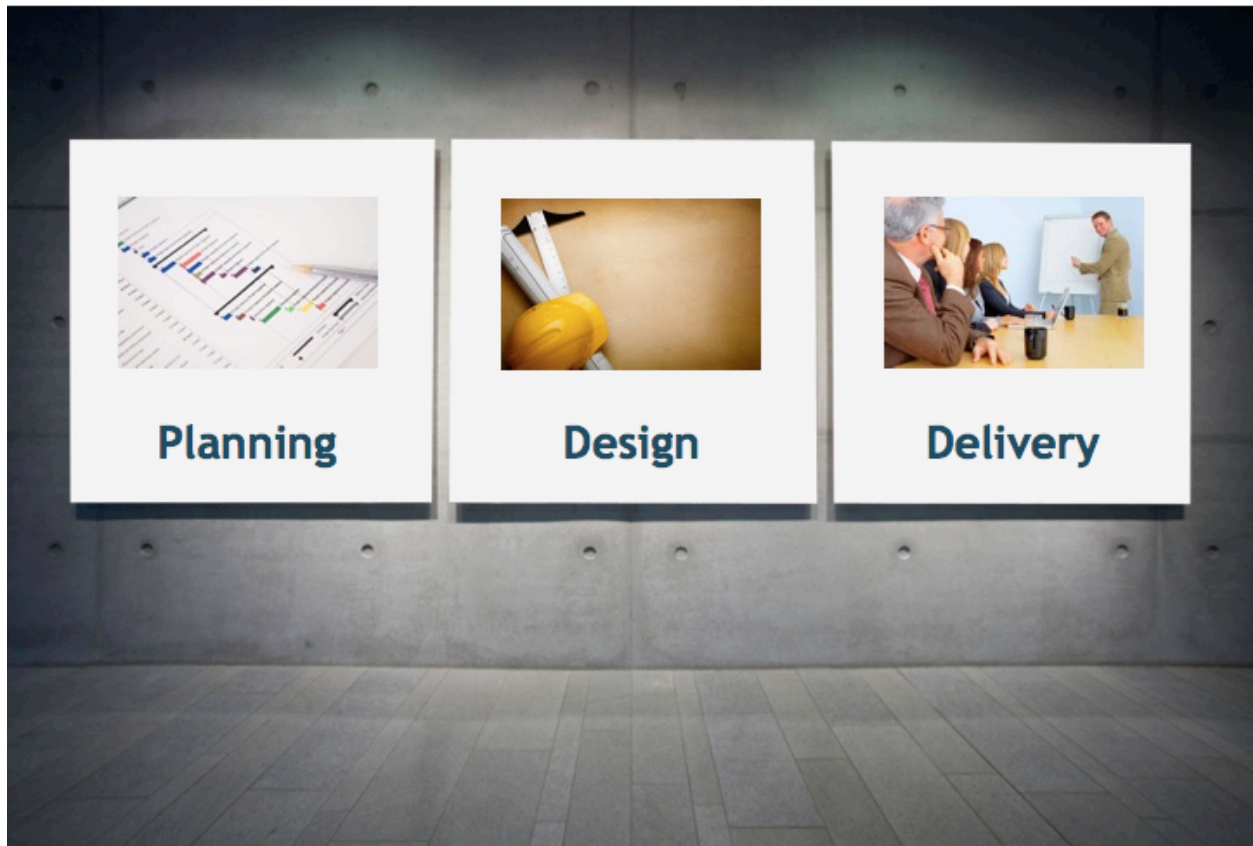


Effectively Communicating with Visual Aids



Visual aids and computer presentations can enhance speaker credibility and persuasion, increase audience interest, focus audience attention, and aid retention of key points/content. The exact opposite is also true when visual aids and computer presentations are used poorly by a speaker. The goal of this chapter is to aid speakers in achieving highly successful presentations and avoid some common pitfalls when using visual aids.

First, what is a visual aid? **Visual aids** come in a variety of forms from physical objects, photographs, and maps to slides, overheads and computer generated presentations. Visuals aids (1) convey what words alone cannot, (2) explain abstract concepts, (3) aid retention of information, and (4) maintain audience interest. Effective visual aids are simple, relevant, and reinforce the content of the speech. The mere presence of visual aids in a speech does not make a speech better. Deliberate consideration and planning are required to effectively incorporate visual aids into a speech. The best visual aids are only as good as the presenter is able to deliver the speech and effortlessly transition between visual aids.

In this chapter we will review planning, design, and delivery principles for visual aids and computer presentations. The majority of these principles transcend a particular type of visual aid. Yet, given the predominance of computer-generated presentations, we will also cover some specific principles for the effective development and delivery of computer-generated presentations.

Planning

Planning is key to a successful presentation whether or not you will be using visual aids or computer presentation software. As a speaker, it is important to consider your audience and the purpose of the presentation. The audience's knowledge of your topic will influence the amount of detail and complexity required. An audience with little knowledge of your topic will require more background information, definitions of jargon/unknown words, and explanations of key concepts compared to an audience with advanced knowledge. Likewise the advanced audience will expect the presentation to be tailored to their knowledge level or otherwise they will quickly lose interest.

Proper planning will ensure that essential information is conveyed in a manner and pace that is adequate for comprehension. The process of planning can be very time consuming for an effective presentation. Brainstorming and developing an outline for the presentation is a prerequisite in deciding whether to use a visual aid or create a computer generated presentation.

As part of the planning process, there are several questions that a speaker should consider:

Can you achieve your purpose without visual aids?

A critical part of the planning process is determining if you really need visual aids. The length of the presentation, complexity of the material, and visual impact of a visual aid should all be weighed. A good speaker doesn't use visual aids or presentation software just for the novelty or to meet an expectation. Visual aids should increase the audience's understanding of the material - not diminish it. Confusion introduced by perplexing slides or the introduction of a non-relevant visual aid should be avoided.

Significant time and effort is required to create stellar presentations. An important consideration is whether the effort is warranted for a small aspect of the presentation or a short presentation. Duarte Design, who produced Al Gore's PowerPoint slides featured in the documentary *An Inconvenient Truth*, estimates a 30 slide/1 hour presentation takes approximately 40-90 hours to produce (Duarte, 2008). Founder Nancy Duarte explains, "The amount of time required to develop a presentation is directly proportional to how high the stakes are."

Even if the stakes are high a computer presentation might not be appropriate and other forms of visual aids might be more effective. For example, a 4-minute sales pitch might benefit more from a persuasive handout than a 3-5 slide computer presentation. Likewise, a really important presentation might require outsourcing the production of the visual aids to a graphic designer. Such a presentation cannot be created at the last minute and will require adequate time to assemble the content and convey the graphical needs to the designer. Thus, it is extremely important to determine early what will be presented.

What will you be presenting?

Visuals aids are extremely useful to tell a story, explain something abstract or unknown, and to show relationships. For example, if a speaker was to explain the history of the Hawaiian musical instruments, such as the ukulele, they might say it is a small guitar-like instrument. The display of a ukulele would be highly useful for the audience who may be unaware of ukuleles. The playing of a ukulele could also serve to enhance audience interest in the topic. As we noted above, visual aids are useful to explain what words alone cannot.

The best visual aids advance the narrative of the presentation. Recently, the more common outcome of visual aids is plenty of bullet points that do little to advance a narrative. The result of such presentations is to either bore the audience to sleep or confuse them. In *Beyond Bullet Points* (Atkinson, 2005) suggests to use the tenets of good story telling to create rich and engaging presentations. The power of visual aids is to engage the audience and aid in the retention of the narrative and key information.

Effective presenters are able to enhance their narratives with engaging visual aids. In one of the most memorable presentations at the 2007 TED (Technology, Entertainment, Design) conference, neuroanatomist Jill Bolte-Taylor told the story of her own brain hemorrhage with a handful of slides and a real human brain. Through her story telling and some deliberately planned slides, she conveyed the complexity of the brain at a pace and manner that was easy to comprehend. The power of the presentation was the story as a method to relay key concepts of brain anatomy without overwhelming details such as computer slides.

Content is key for a visual aid. Content may be your outline so the audience can follow your main points and argument. Photographs can be used to show things that words cannot or should not express; the same is true for videos. Powerful images can reinforce your message. Sometimes a visual aid may be an actual object. Depending on the size of the audience, it could be passed around. A word of caution: if audience members are focusing on when the object will be passed to them, they are no longer fully attending to you as the speaker. An alternative to this problem might be projecting a photograph of the object for all to see.

Computer slides and visuals aids are exceedingly useful for presenting numbers and relationships among numbers with charts. Effective charts and images can provide pictorial representations of abstract concepts to show trends and relationships which otherwise might not be evident if orally delivered. Budgets, cash flow statements, and survey data can be difficult to convey verbally to an audience. Properly constructed charts can highlight key relationships and important details: however, the quality of the design is important to success. Simply showing a lot of data is not effective - visual aids should not be overly complex and difficult to understand. For example in a marketing presentation, a chart can show expected sales of a new car as well as a prototype drawing of what the car will look like. This example highlights two important roles of charts and images in a presentation, (1) convey what words cannot, and (2) reinforce abstract concepts while aiding retention.



Who is your audience?

A successful presentation depends upon audience engagement. As visually-orientated beings, humans react and process visual stimulus easily. Effective speakers tailor their presentations to the audience. For example, a regional sales manager for Pepsi might give a presentation to marketing majors offering them the opportunity to be summer interns. In order for the manager to achieve her speaking goal of recruiting interns, the presentation will need to be geared to a college student audience. The presentation might be flashy, could include a Britney Spears Pepsi commercial, and highlight all the reasons to work for Pepsi all summer and not get paid. On the other hand, if a stock broker were giving a retirement investing seminar to a much older audience, such an interactive and flashy presentation might not be appropriate. Think about how a group of 45-60 year olds would perceive such a presentation. Probably not too positively.

Where will you be presenting?



Environmental factors are often not considered when determining whether to use visual aids. Yet, room-and audience size, lighting, and availability of audio-visual (AV) equipment are critical in determining your ability to use certain forms of visual aids or use visual aids at all. From the office boardroom to the hotel conference hall, these factors will influence not only if you will use visual aids but how you do so. Speakers need to prepare their speech with not only the audience in mind but also the location.

Readability and visibility are important factors in the effectiveness of a visual aid. Certain visual aid formats, such as flipcharts and whiteboards, are more appropriate for smaller settings. The audience must have close and unobstructed views. The same is true for showing a video clip from a television. The audience must be able to see and hear the video for it to be effective. In a smaller setting the above visual aids can be effective, but for larger audiences projection is more appropriate.

Projectors facilitate speakers' ability to show video and computer-generated presentations to larger audiences. Projection works best in rooms without outside sources of light, just like a movie theatre. Often these optimal conditions are not available; so with this in mind, speakers need to make design decisions to aid viewing. Technical issues are another concern for projecting video and computer slides. A myriad of complications can arise when relying on technology for a presentation. A good speaker should be prepared for the worst and hope for best.

So we have reviewed some important questions to ask before starting to prepare your presentation and visual aids. Now, we will offer some guiding principles and design tips for effective visual aids.

Design

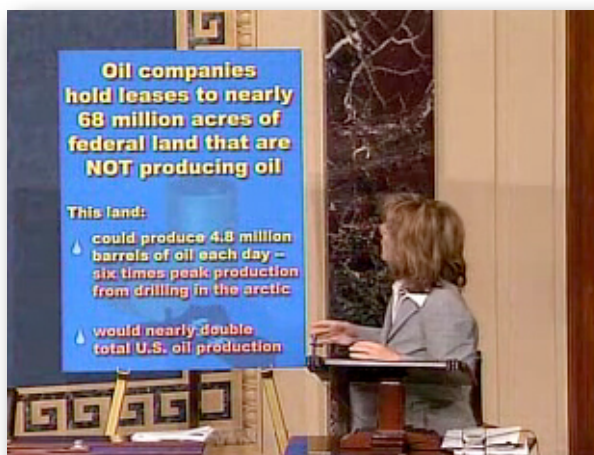
Effectively using visual aids in a presentation is both an art and a science. The science is to properly incorporate the visual aid and the art is the design of it. Many forms of visual aids require graphical and informational design to effectively supplement a presentation. Depending on the importance of the presentation, a speaker may choose to recruit experts to develop their visual aids or to use computer programs to do it themselves.

If you choose to design your own visual aids, there are some good design rules to follow. A rule can serve as effective guide, but also can be a constraint for a presentation. Several “rules” are suggested below to aid in creating an effective presentation, but like all rules there are situations in which it is best to ignore the rule. In preparing visual aids for a presentation, a guiding principal is to ask: do they serve your purpose? If so, violations to these design rules are completely appropriate.

Choosing Colors

Color choice is a very important decision when preparing a visual aid since it will impact your audience’s ability to read them and too much color can be very distracting. The limited use of color can *focus attention* to key terms and concepts. In computer presentations, there is a temptation to overuse color and overuse distracting colors. Color choice must be evaluated in terms of the audience as well as environmental factors, such as where you are presenting. Sometimes color will be dictated by corporate branding, while other times the speaker will have choice and should choose wisely. No more than 2-3 colors should be used on a visual aid and a consistent use of the same color scheme will avoid confusing the audience. However, your use of color should serve your purpose, thus radically changing your color scheme occasionally can be quite effective. Color contrast is light colors on a dark background or vice-versa. High color contrast aids your audience in reading overheads or computer-generated slides, while low color contrast (i.e. light colored text on a light background) can be very difficult to read and even more difficult depending on the lighting of the room. Many presentation software packages provide very pretty templates to use in your presentations, but often these default formats have low color contrast and are not effective.

The best approach is to always use high contrast colors, such as yellow or white text on a dark blue background or dark black or blue text on a white or light ivory background (i.e. for overheads). Viewers of CSPAN often see our elected leaders presenting posters and charts, which use high color contrast. The color choices are deliberate not only for the immediate audience but also the television audience. The creators of these visual aids understand that various technologies do not consistently display color so it is an important consideration.



The equipment you will be using for your presentation is just as important as where you present when choosing color in a presentation. The optimal environment is a dark room with an LCD projector; often though, you will present in less than optimal environments with outside light sources and a poor projection system, perhaps even a standard overhead projector. Different computers and operating systems can also impact how color is displayed. For example, you might use red to highlight a word and it will display as orange. Remembering this, you will need to prepare your presentation for the environment in which you will be presenting. If you are unaware of the environment, your presentation should follow the general rules suggested of high color contrast and limited use of color since you will not know how they will project.

Margins

Margins are common to business reports and memos, but often in presentations margins are ignored as speakers attempt to place too much content on a poster, slide or overhead. This results in the visual aid becoming unreadable in an attempt to fit all the content. Additionally, a practical concern is that text in the lower or side margins might be unreadable to the audience. One-inch margins for a slide or overhead can help avoid this problem. Television producers use a similar rule to create “TV safe” shots, such that all the important action appears in the center of the screen. Various sized television sets cut off the side margins differently, thus to be “TV safe” is to never shoot any action near the sides of the screen. This also establishes the center of the screen as the focal point for your audience and guides their attention.

Beyond bullet points

A poster, overhead transparency, or computer slide does not need to have every word spoken to the audience and instead should summarize no more than 3 to 4 main points or facts. A general rule is “less can be more.” Remember, your bullet points are to serve as signposts for the audience to let them know the direction of the presentation. The audience should not be reading all the time and too much information will result in that outcome. Other times your audience might not be able to grasp a complex or technical definition, in which case a visual aid with the definition can help in comprehension and retention.

Garr Reynolds in *Presentation Zen* (2008) suggests simplicity matters and that one approach is to use strong visual images instead of lots of bullet points and to speak extemporaneously about the topic. A successful combination can maximize credibility, interest and retention of your message. The key is to find a balance between reinforcing your main message without overwhelming your audience with too much information.

Readability

A business communication professional once remarked, “It is amazing how often individuals make overheads or slides that are unreadable, which invalidates their purpose.” This often occurs when the visual aid is an afterthought to the presentation and created just for the purpose of having a visual aid. Several formatting tips can increase the readability of visual aids for the audience and these tips can also aid retention and focus attention to the main points of the



presentation. A general rule is that nothing should be shown or projected onto a screen that is unreadable from the back of the room.

Font selection and text formatting can produce different results depending on the form of a visual aid. Standard fonts, such as Times and Arial, are best for any form and are recommended. In the case of computer delivery, non-standard fonts might not always display as expected and should be avoided. An overhead of a speech outline in a 12-point font will be unreadable to the audience and serve no real purpose. In the real world, an individual could lose their job for such a poorly produced visual aid. Professional appearance is critical to your audience's perceptions of your credibility and acceptance of your message.

Professional appearance

Over the last 20 years personal computers have increased in their power as communication tools. The bar has been raised in terms of expectations for presentations and visual aids. A speaker's credibility can be enhanced or diminished based on the professional quality of their visual aids.

Software tools can give anyone the ability to create professional looking visual aids, but ability doesn't translate into results. When visual aids are critical to a presentation, consider hiring a professional. If you are designing your own visual aids, some suggestions to enhance the professional appearance include:

Stock-photography versus clip-art

Early software programs for creating visual aids had limited graphic capacity resulting in the "rise of bullet points." With the introduction of clip-art for desktop publishing and presentation software, individuals were able to insert images, mostly cartoonish in nature. These were often unprofessional and overused by individuals. Over the years, the quality of the clip art has improved, but the tendency to overuse images has not changed. If you choose to use images, there are several free and commercial websites for obtaining quality professional images to use in a presentation (see resources). The use of such images increases the professional appearance and visual impact of the presentation.

Avoid useless motion & animations effects

Computer-presentation software provides the ability for transition effects and animations. Purposeful animation and transitions can be quite effective if used in moderation. Yet of all the tools in these software programs, animation is probably the most misused. In 2000, General Sheldon, chairman of the Joint Chiefs of Staff, issued an unusual order to U.S. military to avoid "Venetian-blind effects or fancy backdrops" (Jaffe, 2000). The general's concern was Pentagon presenters focusing too much on style than substance. His concern is still very valid today as many presentations contain useless transition effects and animations.

Templates

Templates for handouts, posters and computer presentations can produce professional quality visual aids. Templates should be evaluated for their professional quality, ap-

appropriateness for the presentation, and the environmental setting. As noted above, high color contrast, good margins and readability are all factors to be considered when using a template.

The above design principles are only one component to effectively using visual aids. We will next discuss the importance of delivery and effortless transitions.

Delivery

Visual aids should guide your audience through your presentation and reinforce the main points, thus focusing attention and aiding the retention of your message. Visual aids serve as signposts for your audience and highlight your main points. Even the best visual aids cannot achieve these results unless the presenter is able to effectively deliver the speech and transition effortlessly between them.

Timing

In order to maximize the effectiveness of visual aids, a presentation must be well paced so that the audience can process and absorb the content. Rapid delivery of computer slides or visual aids defeats the purpose of even presenting them if the audience doesn't have enough time to view/read the information presented. Especially in cases of presenting complex information, such as charts and tables, speakers should not only explain the relevance of what is being shown but allow enough time for the audience to focus and understand the significance as well.

Two common mistakes when delivering a computer generated presentation are to (1) create a slide for every point and (2) rapidly deliver more than one visual aid per minute. To avoid these common mistakes, you should pace the presentation to have no more than one visual aid per minute. A 5-minute presentation should have no more than 5-6 slides or overheads. This rule will help you to avoid the temptation to have a visual aid for every point and to read word-for-word from the slides by instead summarizing the main points for both yourself and the audience. Bullet points can help you deliver the presentation in a more extemporaneous delivery style. Too many slides serve as a distraction because your audience will be reading instead of listening.

Speak to the audience, not the visual aid



The overhead projector, screen, or poster can't hear you. Speakers should keep their eye contact directed towards the audience instead of the visual aids. A speaker cannot interact with an audience when they are always looking in another direction. This commonly occurs when the speaker uses visual aids in lieu of note cards. Speakers avoiding eye contact with the audience appear unprepared or unknowledgeable about their presentation and are inarticulate in their vocal delivery.

Don't obstruct the view of the visual aid

Whether a poster on an easel, transparencies on an overhead projector, or television monitor, your audience must be able to see the visual aid for it to be effective. Obstructions can occur based on the configuration of the setting for the presentation or the speaker. Sometimes obstructing the view of a visual aid cannot be avoided, but it is best to minimize any obstructions.

Limit display of visual aids

Visual aids, whether slides, posters or objects, should only be displayed while the speaker is discussing them and the audience has had a chance to absorb the content. Otherwise, the visual aid becomes a distraction. For computer presentations, if you are not going to transition slides for a lengthy period of time and are no longer discussing the current slide, you can insert a blank slide or cover the lens of the projector.

Transition effortlessly

For effective delivery, you must master transitioning between your speech and the introduction of visual aids. Visual aids should not become a distraction. Some forms of visual aids are easier than others to transition between. Each transition to a new overhead or slide will get the attention of the audience and cause them to momentarily devote more attention to the screen rather than your words. Your transitions should not consume your activity and must be smooth in order to not make a distraction. Overheads often stick to one another and make transitions difficult. Computer delivered presentations avoid such difficulties but can result in a speaker too absorbed by the technology rather than the audience and the message.

The preparedness of the speaker also impacts effortless transitions. Practice and awareness of the timing of transitions are key factors in effective delivery. Good presenters know the outline of the speech and the visual aids, which accompany each segment. If possible, they have practiced in the actual setting for the speech and at a minimum have rehearsed using the visual aids.

Summary

Effectively using visual aids and presentation software can enhance speaker credibility, focus attention, increase interest, and aid retention. Often these benefits are achieved with a simple presentation. The absence of planning and poorly designed visual aids which are not readable, relevant to the presentation, and overly complex reduce effectiveness and have a negative impact on a speaker's credibility and the audience's interest in the presentation. The decisions you make in preparing visual aids for a presentation should always include how to best achieve these benefits while avoiding the temptation to overwhelm your audience.

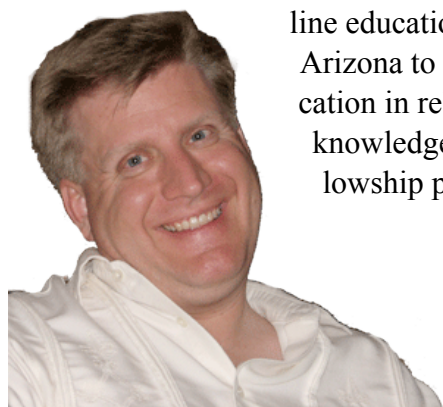
In order to maximize your delivery using visual aids, you will want to avoid some common mistakes. Do not obstruct audience member's view of your slides by walking in front of them or the projector such that the audience cannot see them. Repeatedly obstructing the view of the audience will result in them concentrating on your movement instead of your message. Speak to the audience, not the screen (it can't hear you anyway!). Turning your back to the audience is never a good idea. Also, you should display visuals only when referring to them to prevent distraction. Lastly, your pace should be adequate for the audience to comprehend the content of the speech and the visual aids.

About the Author

Gates Matthew Stoner, MA, has been teaching communication and public speaking for over 10 years at the University of Arizona, Pima Community College and Santa Clara University. He has taught students of all ages and backgrounds on methods to overcome their fear of speaking and preparing a stellar presentation.

He currently serves as an Associate Specialist of Interactive Learning in the College of Medicine at the University of Arizona. In his role, he develops online continuing education courses for medical professionals. He also serves as an adjunct lecturer in the Department of Communication.

At an early age, Gates started developing interactive media and later web pages. He graduated from Santa Clara University in three years with a BSC in Management and completed a BA in Communication the following year. His four years in Silicon Valley further spurred his interests in computer mediated communication, human-computer interaction, and online education. In continuing his education, he came to the University of Arizona to further his knowledge and understanding of human communication in relation to technology. For the past 8 years he has expanded his knowledge and application of online education in a pioneering 2 year Fellowship program offered by the College of Medicine.



In his spare time, Gates like to travel, listen to smooth jazz, and cook. He can often be found hosting wine tasting dinners or other gathers of his good friends. He can be contacted at gms@mattstoner.net.

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Resources

Presentation Zen Blog
(www.presentationzen.com)

TED Talks (www.ted.com)

iStockPhoto (www.istockphoto.com)

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(office.microsoft.com/clipart/)

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