

*Tools of the Trade: In case you were thinking about turning out the lights . . .*

## *A Guide to Slideware (aka PowerPoint Presentations)*

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### Online Resources

#### [Edward Tufte](#)

If you aren't familiar with Tufte's work, you should be! He's considered the leading expert on the presentation of data.

An Aside: [The Gettysburg Powerpoint Presentation, 11/19/1863](#). The Ravages of Powerpoint!

#### [Lawrence Lessig](#)

[Secrets of a Powerpoint Virtuoso](#)

*"I love it when a professor uses PowerPoint because you have to turn out the lights and I can sleep during class."*

*An anonymous Virginia Tech student*

That's a pretty powerful statement about the value of PowerPoint, isn't it? Edward Tufte does it one better in a November 2009 **Wired** magazine article, where he says PowerPoint "routinely disrupts, dominates, and trivializes content."

Think about the last PowerPoint presentation you gave, or worse, the last one you suffered through. It was probably long and boring, though maybe someone added a few fading or flying or flashing things, or better yet, clip-art, to give it "zip." It was organized around a million bullets or some other funky symbol, like a pointing finger or a smiley face. It had lots and lots of text on each slide, and the more text the slide included, the smaller the font. But that was OK, since the presenter read every word on every slide. If the presentation incorporated data or maps, the figures were so small you couldn't read them, and you didn't have a handout you could refer to instead. Site reconnaissance photographs? You mean those generic photos of trees taken from the centerline of the street?

We've all seen it. We've all done it. And it's time to do better.

Let's look at a few people who are leading the way, with new, more effective approaches to PowerPoint and presentations.

### ***The Lessig Method***

Lawrence Lessig is a Harvard Law professor who specializes in law and technology. Lessig's lectures and public presentations address complex issues related to copyright law, intellectual property, public access to information, and creativity. Rather than pack a PowerPoint slide full of useful information on the law -- a presentation basically summarizing his entire talk -- Lessig instead provides key words, organizational cues and images to enhance his lecture. Each slide is timed to match exactly with what Lessig is saying, and he may transition through several slides in one sentence. Unlike other PowerPoint users, just 5 minutes of a Lessig presentation may involve as many as 75 slides! Here's how he describes his use of PowerPoint:

*"I use the screen to frame what I am saying. One word, or a few words, so that the audience sees what they are hearing. But I never allow the screen to compete with what I am saying. I want them to be*

*focusing on my words, not on PowerPoint graphics. So the word(s) on the screen help them tune in to the words on the stage."*

## Online Resources

Masayoshi Takahashi: [Examples](#)

[Guy Kawasaki:](#)

["How to Change the World."](#)

Penn State Engineering ["Rethinking the Design of Presentation Slides."](#)

### ***The Takahashi Method***

Masayoshi Takahashi needed to make a presentation but he didn't have PowerPoint. He didn't have any graphics capabilities. He didn't have access to photos or clip-art. He wanted his message to be clear and powerful, and the only thing he could use was text. So Takahashi created a presentation using only text. Each slide had one word or brief phrase summarizing his major point, and this word -- a Japanese character -- was HUGE.

As with Lessig's approach, Takahashi wanted people to pay attention to what he was saying, not what he was showing. He also wanted a presentation that was easy to see and understand.

### ***Kawasaki's Top-Ten Format***

Guy Kawasaki attributes his PowerPoint method to his own experiences watching a variety of CEOs whom he says have two characteristics in common: "They suck as speakers and they go too long. And that's a deadly combination." (Steve Jobs is a clear outlier in this regard!)

Guy promotes (in his terms, "evangelizes") a 10/20/30 rule for PowerPoint: 10 slides, 20 minutes, 30-point font. According to Kawasaki, 10 slides, each with one of your top-ten key concepts, is all the human mind can comprehend at one time. Any more than 10 and you will lose your audience before you ever make your point. (And, he says, if people know you have only 10 slides and you are a bad speaker, they can track how much longer they have to listen to you.)

The same is true for the length of your presentation. You may be offered a 60-minute time slot, but it's better if you plan to speak for a maximum of 20 minutes, for a variety of reasons. One is that you need to allow time up front for technology issues, such as connecting your computer to the projector or getting the microphone to work properly or adjusting the lights. You need to save some time to engage with the audience following your presentation. And 20 minutes is the maximum amount of time your brain can focus on a topic before you need to take a break.

Kawasaki's final requirement is a minimum 30-point font, which is necessary in order for people to see and understand the slide. Smaller font reduces readability, and may allow you to give in to temptation and put more writing on the slide. Don't do it!

### ***Assertion-Evidence Structure***

This very formal approach is designed primarily for scientific research, but the model can easily be adapted to fit other types of presentations. A talk is organized around exactly six slides:

- An opening slide that includes the title of the presentation, the names of the researchers and their affiliation (with logo) and a single image that captures the topic and its importance.
- A mapping slide with an overview of the presentation. A single sentence at the top of the slide summarizes its purpose or focus. This is the "Assertion" statement. The slide introduces no more than three major topics (introduction and conclusion are not included here). Each topic is represented by an image or graphic, plus a brief statement or definition.
- Three topic slides, one for each of the three key points of the

### [Pecha Kucha](#)

The term is pronounced Pe-cha'-ku-cha', with the emphasis on second syllables, but sounding more like one word than two words

### [Garrett "Garr" Reynolds.](#)

- [Presentation Zen](#)
- [Sample Presentation](#)

Cliff Atkinson:

- [Beyond the Bullet Points](#)
- [Sociable Media](#)
- [Templates](#)

presentation. These slides may re-use the images from the mapping slide or provide new images, graphs, or equations. At the top of each topic slide is a headline, stating what evidence is available to support the original assertion.

- The final slide provides a summary statement or conclusion on the research, with one or more supporting points. An image that supports the conclusion is provided as well. The word "*QUESTIONS?*" appears at the bottom of this slide, leading to the Q&A period without adding a slide to the presentation.

### ***Pecha Kucha, or 20 x 20***

Pecha Kucha means "chit-chat" in Japanese. It was originally devised as a way for artists and designers to meet and show/talk about their work in a coffee house-like setting. It has since evolved and is employed in a variety of venues and situations. The key to Pecha Kucha is a pre-programmed PowerPoint slide show of 20 slides, each of which appear for exactly 20 seconds. When the last slide disappears, the presenter must stop talking. Each speaker is thus limited to 6 minutes and 40 seconds, which ensures equal time and allows for a variety of presentations in one Pecha Kucha evening event.

Pecha Kucha is not suitable for complex discussions, but it might afford an opportunity to introduce, summarize, recap or update.

### ***Presentation Zen, Beyond Bullet Points, Slide:ology (and others)***

Garrett "Garr" Reynolds, author of *Presentation Zen*, addresses the PowerPoint issue from a slightly different perspective. While he is certainly concerned about the content and format of the slides, he cautions that the quality of the presentation is as much about organization and preparation as it is about the slides and delivery.

On his website, Reynolds outlines his approach to presentations, which he has divided into a 10 key points. None of these is actually about PowerPoint slides! In other words, a quality presentation is one with a clear message, a well-defined structure, and solid content. It is tailored to a specific audience and is appropriate for the venue. The presenter really knows the material, stays on point, tells some good stories, and speaks with confidence.

If you are using PowerPoint, Cliff Atkinson (author of *Beyond Bullet Points*) recommends (1) writing a script and (2) storyboarding the script to clarify ideas -- in "analog" form -- and then (3) producing and delivering the presentation in electronic form. Your talk is based on your script; the slides simply communicate your message.

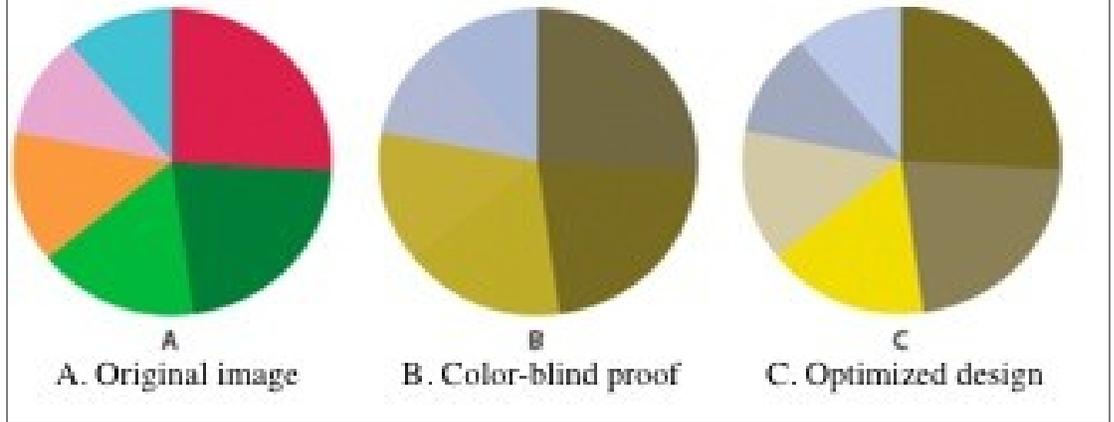
Both Reynolds and Atkinson use a simple model for PowerPoint slides, which is based on the adage *a picture is worth a thousand words*. Each slide includes a single photograph, chart or other image. Milo Frank (see the reference list) calls this a "visual hook." Atkinson suggests iStockphoto.com as a source for images (for a fee), but other websites like Flickr.com make images available for free. Just be sure you have permission and are using the photo with adequate attribution.

A brief statement that summarizes the message in your script accompanies the graphic. The use of a complete statement or, even better, a full sentence, is important. Research shows that students learn more and listeners remember more if PowerPoint slides are handled this way (rather than using a generic title or summary word).

### ***Universal Design***

I would like to add something here that is not part of any other discussion, and that is universal design. Universal design is about making things easy to use and

## Adjusting design for color blindness



### Online Resources

[The Center for Universal Design](#),  
North Carolina  
State University

[Soft Proof Colors](#),  
Adobe Systems

understand. Although the concept is most often applied to people with disabilities, the reality is that universal design principles can be adopted in any situation and for anyone. For example, we have doors that open automatically for people with wheelchairs or other mobility impairments, but an automatic door is also useful if we're wheeling a shopping cart or a baby stroller, or carrying something heavy.

When putting together a presentation, it is important to think about color schemes and fonts and what will be easiest for the entire audience to read and understand. This requires a hierarchy of font types (serif, sans serif, italic and bold, etc.) as well as font sizes. Contrast may also be an issue. You will have to take into consideration the venue, ambient lighting, and the potential for the projection equipment to change colors slightly.

Some people are color blind, which makes color combinations important. The figure below, provided by Adobe, shows how colors must be adjusted to account for the various types of color blindness. Pie B shows how colors are interpreted, while C, the optimized design, modifies the tones to create additional color options.

You should also plan for the unusual event that includes audience members with limited sight or hearing, or other issues that may require enlarged versions of handouts, digital copies of presentations, etc.

### So What?

Garr Reynolds says every presenter needs to ask, *SO WHAT?* Why is all of this information important, and what should I take away from the presentation? So, based on the above discussion, here are the three things you can take away from this article:

1. **Turn off the computer!** It is better to plan, organize and prepare the presentation first and *then* create the slides. Even outlining or storyboarding is best done "analog." If you start thinking about the presentation by booting PowerPoint, you are probably doomed, no matter how well you know the subject.
2. **Find a presentation style that works for you and your situation.** You may not be the next Lawrence Lessig, ready to synchronize hundreds of slides with your talk. You may not be able to get things done in 10 slides like Guy Kawasaki. You may need more time than the 20 seconds for 20 slides Pecha Kucha allows. That's OK. If you plan and practice, you will come to some of your own conclusions about what

## Online Resources

[TED: Ideas Worth Spreading](#)

Hans Rosling

- [Public health data presentation](#)
- [Gapminder](#)

works best. Once you find the proper balance among slides, text and images, refine your method until you make it your own. Just pay attention to the basic concepts and focus on the visual.

If you are interested in other examples of good presenters with really great ideas, visit the TED (Technology Entertainment Design) site. TED is a nonprofit organization that holds several conferences around the world each year, where big "thinkers" are invited to share and inspire in talks of 18 minutes or less. Hans Rosling gave a particularly interesting and amazing presentation on public health data in 2006 -- one that probably violates every single rule about presentations. But it works for him!

3. **Remember, less is more**, and this means less of everything except planning, planning, planning: fewer slides, no bullets, less text, shorter time. If you believe the audience needs more detail, more data, more words -- **put this in a handout**.

And maybe, just maybe, less even means fewer PowerPoint presentations!

## READING LIST:

- Alley, Michael. (2002). *The Craft of Scientific Presentations*. Springer.
- Atkinson, Cliff. (2007.) *Beyond Bullet Points*. Microsoft Press.
- Duarte, Nancy. (2008.) *Slide: logy: The Art and Science of Creating Great Presentations*. O'Reilly Media.
- Duarte, Nancy. (2010). *Resonate: Present Visual Stories That Transform Audiences*. Wiley.
- Frank, Milo. (1986). *How to Get Your Point Across in 30 Seconds*. Pocket Books (Simon & Schuster).
- Gallo, Carmine. (2010). *The Presentation Secrets of Steve Jobs: How to Be Insanely Great in Front of Any Audience*. McGraw-Hill.
- Reynolds, Garr. (2008). *Presentation Zen*. New Riders Press.
- Reynolds, Garr. (2010). *Presentation Zen Design: Simple Design Principles and Techniques to Enhance Your Presentation*. New Riders Press.
- Tufte, Edward. (2001). *The Visual Display of Quantitative Information*, Second Edition. Graphics Press.
- Tufte, Edward. (1990). *Envisioning Information*. Graphics Press.