Make them listen to your slide talk

J. Gelernter, PhD
Information Technology Laboratory

Abstract

A main reason that audience members often prefer to check email today rather than pay attention to the speaker is that the speaker does not pay attention to them. This article presents how to hold the attention of the audience, explaining the logic or citing the research behind each suggestion. It consists of two parts: how to prepare a talk and supporting slides, and how to present the talk.[1] Those who implement most of these suggestions will hold the attention of the audience throughout the slide talk.

Introduction

Measures of success for the talk

The measure of success of a research presentation is its effect on the people in the audience. One specific measure is that people remember the main points of the talk. Another measure is that they face you rather than their screens as you speak; yet another is that some people are interested enough to ask questions at the end and you have time left for them to do so.

The slides are the side show. They should illustrate what you are saying. Wordy slides that you do not read will *compete with your talking* for the audience's attention, and they will win, because the visual channel dominates the auditory with respect to attention (Weinschenk, 2012). If you need more text to keep on track, read occasionally from your laptop while you speak, but do not it to the audience.

[1] *This guide does not cover situations in which you are giving a workshop, seminar or class. In these cases, the level of detail on the slides and in the talk will be higher, and probably also more thorough, and there will be either assigned or follow-up readings, or possibly exercises or assignments to reinforce that slide detail.*

Key concepts and lessons.

I. How to prepare the talk

Content–no slides yet

Decide upon the core ideas.

The main task is to make the presentation interesting while getting your point across so that people will *want* to pay attention. Craft an "elevator speech" in the first few minutes of your talk. The elevator speech consists of the 1 to 3 most important core ideas that you would want someone to remember if you had only the duration of an elevator ride to speak. This might include your contribution or solution to the problem, background on the problem itself, why the problem is interesting or important, what others have done to solve it, and how your contribution differs. Experimental results discussed during the talk will help demonstrate why your solution is effective.

What does it mean to be interesting, and how to convey it?

Construct the significance and contribution statements in fundamental terms so that they are understandable to *anyone:* think of the person at a table next to you in a restaurant, or your mother. When you think of the ideas as interesting to anyone, you will tend to explain using less technical language,[2] and describe benefits such as: saves time, saves money, allows better decisions, prevents accidents, and so forth, that will draw in the entire audience. Your mission is to make sure that what you say holds the interest, or attention, of the audience. We already know that the material is interesting to you: deliver your talk with enthusiasm and the audience should reflect that emotion (Weinschenk, 2012).

Define most terms

When you do use technical language, define terms. Even for an audience of people in your field, there will be some who have not read papers *very recently* that directly pertain to the topic, and they might have trouble understanding the finer details as you are speaking. Describe the method in broader strokes and refer those who want more to

[2] Dale Carnegie, in his Public speaking and influencing men in business, 1932, proposes the same.

examine your article. Your talk does not substitute for reading your article; you are trying to get people familiar with you and your work.

Repetition

Over the course of the talk, repetition is not only acceptable, it is to some degree mandatory, to highlight important points at the beginning and end. Begin with enough of a preview of presentation content so that the audience will understand how the logic will unfold. That which is most important in your talk should be repeated at the conclusion, although not necessarily word-for-word.

Length of presentation

It is not a requirement to fill up your time slot any more than you are required to fill up your dinner plate at the conference buffet. Use only the time it takes to communicate the main ideas of your work. Further, it can be counted in your favor if you finish early. This is because (1) almost everyone in the audience has something to do immediately after, (2) your talk will be considered well organized if you go through everything you intended to say at a comfortable pace, and (3) you will have additional time for questions and discussion, which will reflect positively on the fact that your talk was understood and appreciated.

Content—with slides

Your slides serve to illustrate your speaking. As such, they are intended for those who attend the talk. Given their role as side show to the talk, the slides should be sparing of words. In fact, slides are non-essential to effective public speaking. Think of a minister who addresses his congregants without any visuals except perhaps a hand gesture for emphasis. In the case of a projector failure, you might need to give your talk without slides.

Number of slides

Using fewer slides frees you to spend more time explaining each particular slide. Besides, slide flipping can be mind-numbing for the audience unless you flip so fast that

you create animation. Assume that you will take at least 2 minutes per slide, and determine your slide limit according to the time slot. Circumstances in which it is fine to include extra slides include helping to prove a point or adding humor.

Design of slides

Unify slides in the deck with respect to color, font type and font size. For the slide body, use a font size no smaller than 20 points so that those in the back of the room can see clearly. Do not use all capitals, which can be harder to read. Compose text and images asymmetrically, although with balance, because visual symmetry tends to be boring. As for lists, bullet dots themselves are unnecessary. The black dots draw the eye toward themselves and away from the words, saying "these items comprise a list." But almost everyone who can read also can recognize immediately that words stacked vertically with a heading are a list (see figures below). Edward Tufte rails against this sort of list and the compressed language of presentations: "Bullet outlines dilute thought" (Tufte, 2003, p5)

Throughout the slide deck, alternate slide layouts so that the design does not become monotonous (Alley, 2005). If you have a comparison side-by-side, for example, the next slide could be single graphic.

Slide content

Slides should contain graphics or results that illustrate major points in your talk. When trying to determine whether to include a slide, think of whether you would bother to write the comment while you are speaking on a blackboard or pad of paper. That rules out slides such as "Any questions?" or "Thank you." If you think you might forget to ask whether there are questions, write yourself notes and speak from them. Sharing such visuals with the audience is unnecessary.

If the slide deck is completely comprehensible by itself, the slides might be effective for a training seminar or class, but as a slide show to accompany your speech, the slides will

draw attention away from you, and hence, will make it harder for people to understand what you are saying.

Every marking that does not support your argument is a potential distraction. Generally, the less "apparatus" on the slide, the better—no running logos, although some organizations require them. Avoid decorated background templates which draw attention to aspects of the slides and talk that are meaningless. Save such decorative templates for party invitations.

Slide title

The slide title should have the take-away point of the slide. Short topic headings for slide titles do not take advantage of this high-value slide real estate. Research has shown that a complete title sentence and graphic is more effective than the short topic heading with subtopic bullet list that is typical of PowerPoint (Alley et al, 2006) (Wolfe et al, 2006).

Slide main area

Complement what you are saying with a relevant image, chart, or diagram, or video. It has been found that bullet lists are less effective than an image when it comes to retention of what was said (Alley et al, 2006). A fortiori, a paragraph on the slide instead of a list will be vastly less effective. This is because some in the audience will read the slides instead of listen to you; others might start to read and be lulled to sleep, or even dive into their email.

Beginning and ending slides in the presentation

At the beginning of your talk, say what you are going to talk about, elevator-speech style. Do not say how you will proceed with abstractions, as in the overview slide below (See Table of Contents Figure). Your last slide should have a main point or summary: whatever thought you would like the audience to be left with. Using the last slide for a non-essential point in your presentation such as a list of references wastes your final opportunity to help your audience remember your core message and perhaps your e-mail address.

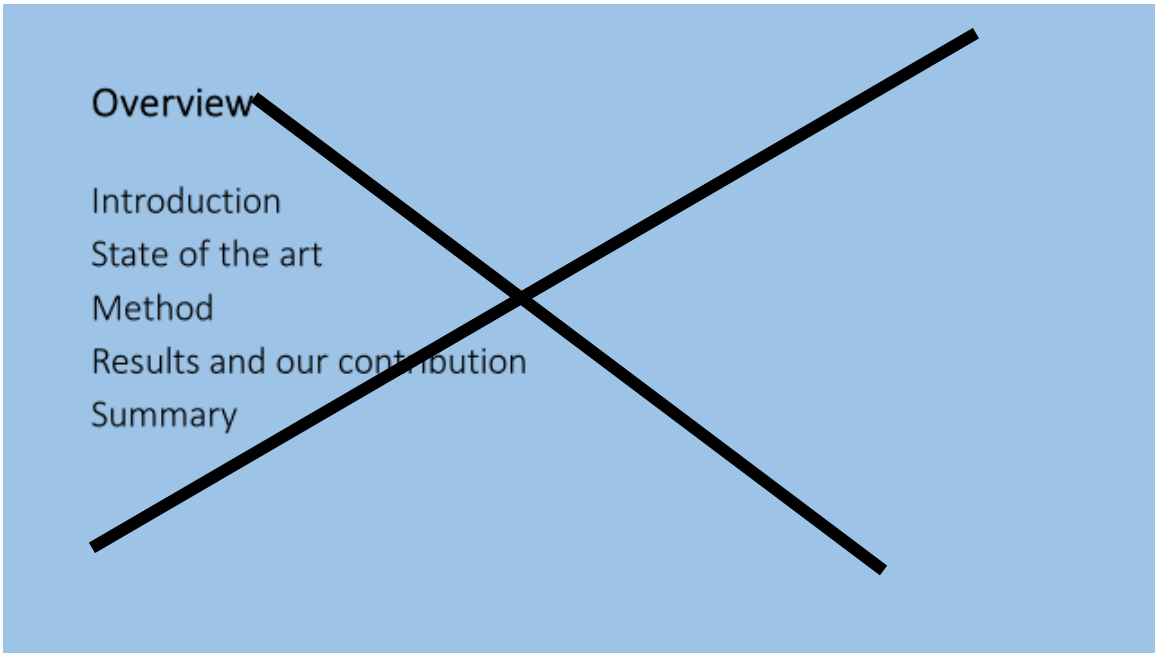

Figure above: do not use a Table of Contents that is generic.

Instead: A concise overview of some problem and the proposed solution.
The remainder of the talk will describe the solution in more detail.

Check the finished slide deck

Read the titles: the progression of the argument should be clear from the titles alone. Remove most slides that do not advance your argument. That is because, at best, such slides will gobble time that you could be spending reinforcing what you hope the audience will remember. At worst, such slides might lead people to ask questions about points only tangential to your argument, which will side-track other people in the audience and make them less likely to remember ideas that are core.

How to present the slides

Read the words and describe any graphics before you interpret the words or the graphics. This is rarely done, and at least one presenter dismisses reading words on a slide to the audience as "annoying."[3] However, it becomes annoying only when the slide has too many words! So this is actually an instruction more about what makes slide content annoying and less about the act of reading. If you do not read the words, and instead talk about something else on the slide, then the audience will miss some of what you are saying while they read the words on the slide.

Similarly, describe the image or chart or video briefly. Do not assume that the audience will get the point of each chart and image. Each person potentially could summon 1000 different words for the same picture: so specify the words you want for your picture. Then go on to interpret the picture.

Practice

Rehearsing the presentation even when no one is available to comment is extremely useful because it forces you to think through how you will elaborate on the slides, and how to smooth the transitions between slides. Time yourself as you speak, and again, cut out slides if necessary.

[3] http://www.torok.com/articles/presentation/AnnoyYourAudience.html

Will this slide deck substitute for your talk for those who cannot attend?

No. If you have made slides with the goal of using them as the side illustrations for the main act – your talk – then the slide deck will not be too valuable to those who missed the talk. Better if you distribute a talk abstract.

If the slide deck is completely comprehensible in and of itself, then the slides might aid a training seminar or class, but for a research presentation, the slides will distract from speaking, and as such, will be ineffective.

Slides with comprehensive detail will be poor visual aids. But those slides that are better visual aids will be poor substitutes for those who missed the talk. In the words of visual information expert Edward Tufte (2003 p.22), "People see, read, and think all the time at intensities vaster greater than those presented in printed <PowerPoint> reports. Instead of showing a long sequence of tiny information-fragments on slides…report writers should have the courtesy to write a real report…"

II. How to give the talk

How to present your talk formally

Introduce yourself and your topic

Smile at the audience. Introduce yourself (if you have not been introduced already) and possibly also state your department or lab.[4] Then state the title of the presentation, and give a sentence or two of background about the topic and how your research fits in. This is essentially your elevator pitch, with key points for them to remember. Follow this by explaining how you plan to demonstrate the key points in your talk.

[4] A surprising number of speakers do not start with their name or the title of their presentation. They assume that the audience will read the title slide which might have been up for several minutes before the talk started. But in fact, many in the audience check their email, schedule or chat with others before the talk. They will look at the speaker's face and listen to the words and not focus on the first slide—so they lose the talk title.

First describe, then interpret

When you use a slide with few words, and do not read those words aloud, you are assuming that people will take the time to read the slide instead of listening to you. The effect could be that the audience will switch attention between looking (reading) and listening, which (in laboratory experiments) slows response times to either (Dunifon et al, 2016). That means that people are missing some of what you are saying as they read your slides. This will not happen if you read the words on each slide as part of your presentation.

Questions afterwards

It is a good idea to repeat the question. This is for the benefit of those who might not have heard the question, but also for yourself. Use those extra seconds to think about your answer.

Tips on ways to hold their attention

Interact with them

People are captivated by an exceptional speaker, whether or not they agree with the speaker's message. Get them to pay attention to you *by paying attention to them*. Have a dialogue: Ask them provocative questions and listen to their answers, and then comment. Or refer to what someone in the audience remarked earlier. Surprise them. Make them laugh.

Vary your tone of voice

Changing your speaking style temporarily will re-awaken their attention (Pelegrin-Garcia, 2009). You can speak louder or softer. Or you can talk continuously and then pause. A carefully-planned silence will make some people keen to hear what comes next.

Move into their space

Some spaces will allow you to leave the front of the room and walk into the seating area. This will help you especially after the talk, when it will help you hear clumsily-worded questions.

If you find that you are running out of time—change your plans

Finish discussing the current slide calmly. Then skip slides until near the end of the presentation, but include the final slide that restates main points. Do not talk fast and fly through the slides to cover what was intended originally.

Advanced presentation skills

These last few suggestions require the speaker to attend to factors beyond the content of the presentation to a degree that they are harder to pull off.

Poise

Relax your shoulders, with your head centered on your spine. Don't slouch. Many people hold tension in their shoulders and upper back.

Respond to the subtleties of the audience

Observe and respond to the facial expressions of audience members. If you see some people closing their eyes or consulting their laptops, give them something to notice. For example, stop to ask the audience a question, or change your tone of voice (speak louder or softer), or walk into the seating space and engage them more directly.

Implications to practice

Capitalize on the effort invested in doing research, writing slides, and getting to the conference by adapting your presentation style such that more people will absorb your talk. You can polish your own performance to some degree by listening to other talks and implementing what you think works. Continue this study beyond this article by paying attention to style as well as substance at other research talks.

Key lessons

Plan what you will say

- Define core ideas concisely (without slides)
- Repeat core ideas at the presentation's beginning and end
- Define terms
- Do not feel impelled to talk during your entire time allotted

Slide design and content

- Fewer is better (allot 2 minutes per slide)
- Design: sentence + graphic.
- If you would not bother to write a comment on a blackboard (such as "any questions?) it does not belong on a slide
- Remove non-content decoration and markings to the extent possible
- Title of slide should be a take-away message rather than a topic heading
- Lower part of the slide serves better with graphic, chart or image than text

Presenting slides to hold the audience's attention

- Introduce yourself and state your organization
- State the title of your talk and what you will be talking about
- Go through the slides one by one by reading the title, and describing the image or graphic that is on the slide. Then interpret each slide.

Additional tips to hold their attention

- Interact with the audience: ask them questions, refer to their remarks, make them laugh, or surprise them.
- Vary your tone of voice
- Move into their space

Further study

Alley, M., Schreiber, M., Ramsdell, K., and Muffor, J. (2006). How the design of headlines in presentation slides affects audience retention. Technical Communication 53(2): 225-234.

Dunifon, C.M., Rivera, S., Robinson, C.W. (2016). Auditory stimuli automatically grab attention: evidence from eye tracking and attentional manipulations. *Journal of Experimental Psychology: Human Perception and Performance.*

Pelegrin-Garcia, (2009). Comment on increase in voice level and speaker comfort in lecture rooms, *Journal of the Acoustical Society of America*, 2009, 2072-2082

Tufte, E. R., (2003). *The Cognitive Style of PowerPoint*. Cheshire, CT: Graphics Press.

Weinschenk, S. (2012). 5 things every presenter needs to know about people. [see multiple channels of attention] https://vimeo.com/44267609

Wolfe, C., Alley, M., Sheridan, K.C. (2006). Improving retention of information from teaching slides. 36th ASEE/IEEE Frontiers in Education Conference, October 28-31, San Diego, CA, pages T2G-17—T2G-21.

Acknowledgement

This article was motivated by my dismay at having conference members work busily on their laptops instead of attending to the keynote speakers I had invited as conference co-chair.