

Some Rules for Making a Presentation

[Here's](#) a 10-minute Powerpoint talk with the essentials.

Golden rule

Human attention is *very limited*. Don't cram too much information, either in each slide, or in the whole talk. Avoid details: they won't be remembered anyway.

Organization

- Have a very clear introduction, to motivate what you do and to present the problem you want to solve. The introduction is **not technical** in nature, but strategic (i.e. why this problem, big idea).
- If you have a companion paper, mention it during the talk and recommend it for more details. Don't put all the details in the talk. Present only the important ones.
- Use only **one idea per slide**.
- Have a good conclusions slide: put there the main ideas, the ones you really want people to remember. Use **only one "conclusions" slide**.
- The conclusion slide should be the last one. Do not put other slides after conclusions, as this will weaken their impact.
- Having periodic "talk outline" slides (to show where you are in the talk) helps, especially for longer talks. At least one "talk outline" slide is very useful, usually after the introduction.
- Don't count on the audience to remember any detail from one slide to another (like color-coding, applications you measure, etc.). If you need it remembered, re-state the information a second time.
- Especially if you have to present many different things, try to build a unifying thread. The talk should be sequential in nature (i.e. no big conceptual leaps from one slide to the next).
- Try to cut out as much as possible; less is better.
- Help the audience understand where you are going. Often it's best to give them a high-level overview first, and then plunge into the details; then, while listening to the details they can relate to the high-level picture and understand where you are. This also helps them save important brain power for later parts of the talk which may be more important.

Mechanics

- Use a good presentation-building tool, like MS PowerPoint. Avoid Latex, except for slides with formulas (Leslie Lamport himself says that slides are visual, while Latex is meant to be logical). Good looks are important. If you need formulas, try [TeXPoint](#), George Necula's Latex for Powerpoint.
- Humor is very useful; prepare a couple of puns and jokes beforehand (but not epic jokes, which require complicated setup). However, if you're not good with jokes, better avoid them altogether. Improvising humor is very dangerous.
- The more you rehearse the talk, the better it will be. A rehearsal is most useful when carried out loud. 5 rehearsals is a minimum for an important talk.
- The more people criticize your talk (during practice), the better it will be; pay attention to criticism, not necessarily to all suggestions, but try to see what and why people misunderstood your ideas.
- Not everything has to be written down; speech can and should complement the information on the slides.

- Be enthusiastic.
- Act your talk: explain, ask rhetorical questions, act surprised, etc.
- Give people time to think about the important facts by slowing down, or even stopping for a moment.
- Do not go overtime under any circumstance.
- Listen to the questions very carefully; many speakers answer different questions than the ones asked.
- Do not treat your audience as mentally-impaired: do not explain the completely obvious things.

Text

- Slides should have short titles. A long title shows something is wrong.
- Use uniform capitalization rules.
- All the text on one slide should have the same structure (e.g. complete phrases, idea only, etc.).
- Put very little text on a slide; avoid text completely if you can. Put no more than one idea per slide (i.e. all bullets should refer to the same thing). If you have lots of text, people will read it faster than you talk, and will not pay attention to what you say.
- Don't use small fonts.
- Use very few formulas (one per presentation). The same goes for program code (**at most one code fragment** per presentation).
- Do not put useless graphics on each slide: logos, grids, affiliations, etc.
- Spell-check. A spelling mistake is an attention magnet.

Illustrations

- Use suggestive graphical illustrations as much as possible. Don't shun graphical metaphors. **Prefer an image to text.** In my presentations I try to have 80% of the slides with images.
- Do not put in the figures details you will not mention explicitly. The figures should be as schematic as possible (i.e. no overload of features).
- Do not "waste" information by using unnecessary colors. Each different color should signify something different, and something important. Color-code your information if you can, but don't use too many different colors. Have high-contrast colors.
- A **few** real photos related to your subject look very cool (e.g. real system, hardware, screenshots, automatically generated figures, etc.). Real photos are much more effective during the core of the talk than during the intro. I hate talks with a nice picture during the introduction and next only text; they open your appetite and then leave you hungry.
- For some strange reason, rectangles with shadows seem to look much better than without (especially if there are just a few in the figure).
- Sometimes a matte pastel background looks much better than a white one.
- Exploit animation with restraint. Do not use fancy animation effects if not necessary.
- However, there are places where animation is extremely valuable, e.g., to depict the evolution of a complex system, or to introduce related ideas one by one.
- Use strong colors for important stuff, pastel colors for the unimportant.
- Encode information cleverly: e.g. make arrow widths showing flows proportional to the flow capacity.
- Use thick lines in drawings (e.g. 1 1/2 points or more).

Results

- Don't put useless information in result graphs (e.g. the 100% bar for each application).

- Label very clearly the axes of the graphs. Explain the un-obvious ones. Use large fonts for labels; the default fonts in Excel are too small.
- Discuss the results numbers in detail; "milk" them as much as possible.

References

- I don't agree 100% with him, but Mark Jason Dominus gives some very good [advice](#) on presentations.
- Excellent [advice](#) from 1979 by Leslie Lamport.

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