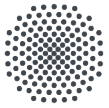

University of Stuttgart
Germany

Presentation

Guidelines

v1.0

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We present general guidelines that should be followed by students presenting their master's thesis, bachelor's thesis, or any other research project at the Service Computing Department of the University of Stuttgart. The guidelines should help students create effective slides and presentation that stands out.

Presentation objective

- Engage an audience effectively and get your message across
- Presentation slides should help you
  - Clarify ideas
  - Emphasise important points
  - Show relationships
  - Provide visual information your audience needs to understand your message

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The presentation is not about showing every detail of your paper. People can read your paper later. Instead, select only the most significant ideas, important points and interesting aspects of your work.

Contents

Organisation

- Title slide
- Introduction
- Background and previous work (optional)
- Approach
- Demo or system execution (optional)
- Evaluation
- Conclusion
- Outlook (optional)
- Acknowledgements (optional)

Contents

Title slide

- Title of the presentation (typically, the same as the paper)
- Names of contributors
- Class or project type
- University name and research institute/department
- Date the presentation is given

Contents

Introduction (2-3 slides)

- Explain the context of research
- Explain why is your topic interesting
- Clearly state your research questions/hypotheses
- Clearly state your contribution

Contents

Background and previous work (1-2 slide)

- Explain theories and concepts that might be unfamiliar to the audience and are essential for understanding your message
- Place your work in context
  - How does it build on previous research work on this subject?
  - What are the limitations of previous work?
- It should be clear and simple

A common mistake is to spend almost all of the allotted time on giving background information and/or going over previous works. Include only *essential* background information and discuss only works that are *directly* related to your contribution.

Contents

Approach (2-3 slides)

- Clearly summarise your approach to the solution of your research problem
- Consider including information about
  - The design of the solution
  - The practical realisation of the design
- Highlight your main technical contributions

Contents

Demo or system execution

- Demos or system executions provide more lively and understandable presentation of your work
- Show how your system solves the problem
  - Focus on the most important features
  - Do not show every line of code
- Keep it short, interesting and value-focused
- Prepare the environment in advance

Alan Kay would never use tools like PowerPoint, but he would open a shell and start showing things instead. Check his post on what tools he used for presentation.

Contents

Evaluation (3-4 slides)

- If theoretical, explain the mathematical proofs of your statements (theorems, lemmas, etc.)
- If experimental, explain
  - Experimental setup
  - Evaluation metrics or parameters measured
  - Quantitative/qualitative results

Contents

Conclusion (1 slide)

- State the most important outcome of your work
- Interpret your findings
- Place your findings in context and draw implications from it
- Constructively point out sources of threats or errors and methodological difficulties

Contents

Outlook (1 slide)

- Mention possible improvements of your approach
- State open questions related to your approach
- Indicate possible new directions of research in relation to your research question

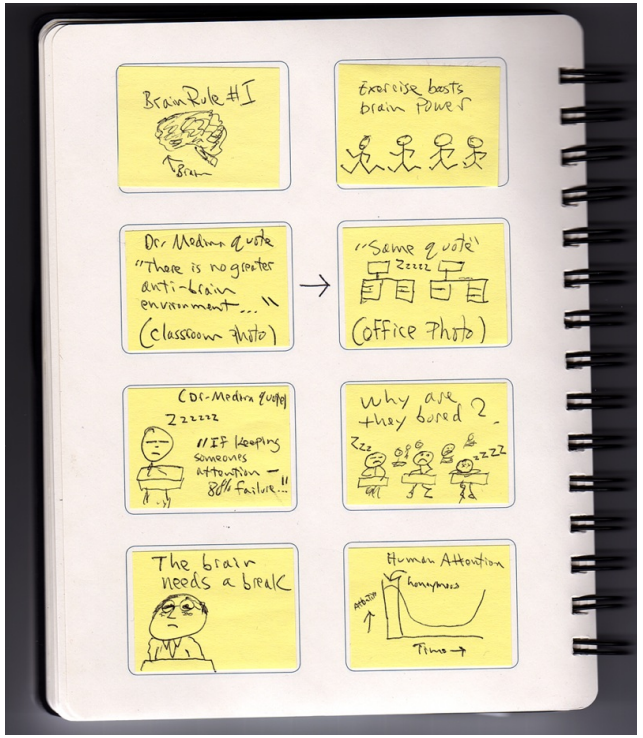
Contents

Acknowledgements (1 slide)

- Thank anyone who provided advice or assistance
- Verbally thank audience for their attention
- Tell audience you would be happy to take questions

Drafting

- Do not start with a PowerPoint template
  - Take a blank piece of paper
  - Make rough sketches of how you want the slides to look
  - Draft title of each slide
- Think about
  - What you are going to include
  - What visuals you want to use
- Consider
  - Complexity of subject matter
  - Audience and their technical background
  - Time you have for presentation
  - Time it would take to present each slide



Sketching out the presentation flow in storyboard fashion is generally helpful [source]

Storytelling

- A most engaging presentation tells a continuous story
- Audience becomes curious about what's coming next
- May help you decide
  - What type of visuals are appropriate
  - Where to place them

The magical science of storytelling by David JP Phillips [YouTube]

Visuals

- Make your presentation visual
  - Visuals are excellent means of communicating complex goals
  - Visuals are diagrams, graphs, illustrations, photographs, etc.
  - Use lots of visuals and relatively few words
- Visuals should be
  - Chosen carefully to support spoken word
  - Clean and simple
  - Of good quality (recreate poor quality visuals)
- Examples
  - Use visuals to get the audience excited about your research problem
  - Use a diagram that introduces your approach and helps you justify its appropriateness to addressing the research problem
  - Use graphs to show research results
    - Use simple, clean and clearly labelled graphs with proper axis labels

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Nothing makes the audience glaze over faster than a text-heavy slide or slide after slide of just text

Less is more

- Build your presentation around 3 important points upon which your work solves the research problem
- Have
  - A minimum of words for title slides
  - Ideally 3 lines of text in each slide
  - Only headwords, no complete sentences (except for Definitions)
- To minimise distraction, avoid using
  - More that three font sizes per slide
  - Too many colours, patterns and graphics in one slide
  - Textured, embossed or otherwise busy backgrounds
  - Animations that are merely gimmicks
  - Other irrelevant material, such as music and sound effects
- If you are not going to talk about a visual or text, remove it from your slides

Steve Jobs broke every segment into 3 parts, and his product demos into 3 features [source]

Consistency

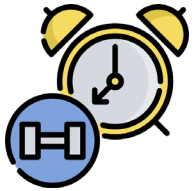
- One consistent tone makes the presentation flow much better
- Whatever presentation style you choose, keep it consistent
  - If you are doing an internal presentation, it is best to use our template
- Keep slides consistent
  - Use the same font family
  - Maintain the same or similar font size from slide to slide
  - Use the same colour scheme

Colouring

- Contrasting colours work the best
- Avoid intensely bright or saturated colours that compete with the text
- Backgrounds should be unobtrusive
  - Dark colours, such as black, can be used provided that a contrasting colour is used for the text
  - Cool colours, such as blue, might allow the text to be more readable, provided that contrasting colours are used
  - Smooth gradation of the colour helps

Preview

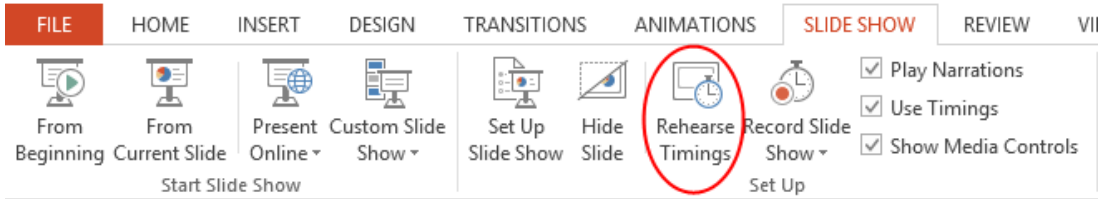
- Preview slides on screen
- When previewing, pay attention to
  - Whether each slide is essential and non-redundant
  - Which points you want to emphasise and why
  - Clarity of ideas and logical organisation
  - Amount of text on each slide
  - How fast the text or visuals appear
  - Font and format consistency
  - Grammar, spelling, punctuation



Practice

- Practice presentation repeatedly
- Rehearse in front of mirror
- Rehearse aloud, not in your head
- Time your presentation
- Don't read your presentation
- Don't be afraid to pause

Ask yourself:
"What do I want to say with this slide?"
"How do I explain content in a comprehensive way?"
"What transitions between slides should I use?"



Use the Rehearse Timings feature in PowerPoint to record the time that you need to present each slide.

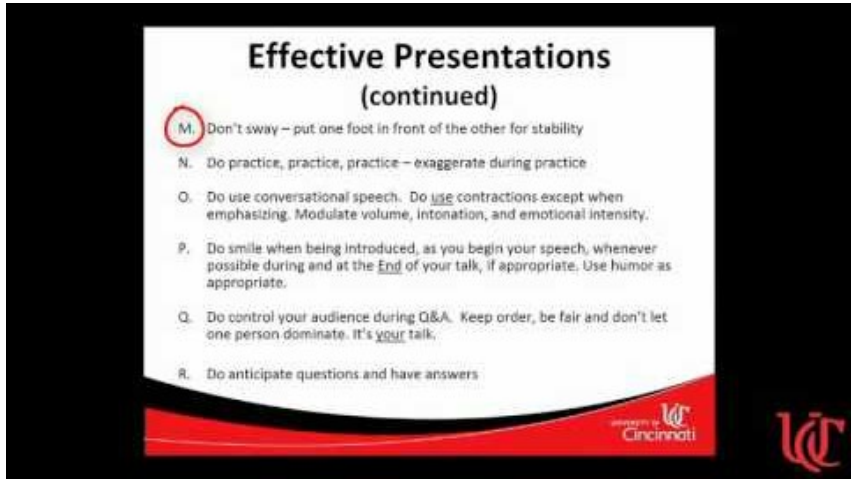
Use your slides as aid to your presentation, not *as* your presentation

Good to know

- General rules of thumbs for the number of slides
  - Have one slide per 2-3 minutes of talk
  - Never have more than one slide per minute
- Sans serif fonts project better and are easier to read
- Upper- and lower-case letters is more legible than all capital letters
- Animated slides take much longer to create than static slides, so plan accordingly

The talk

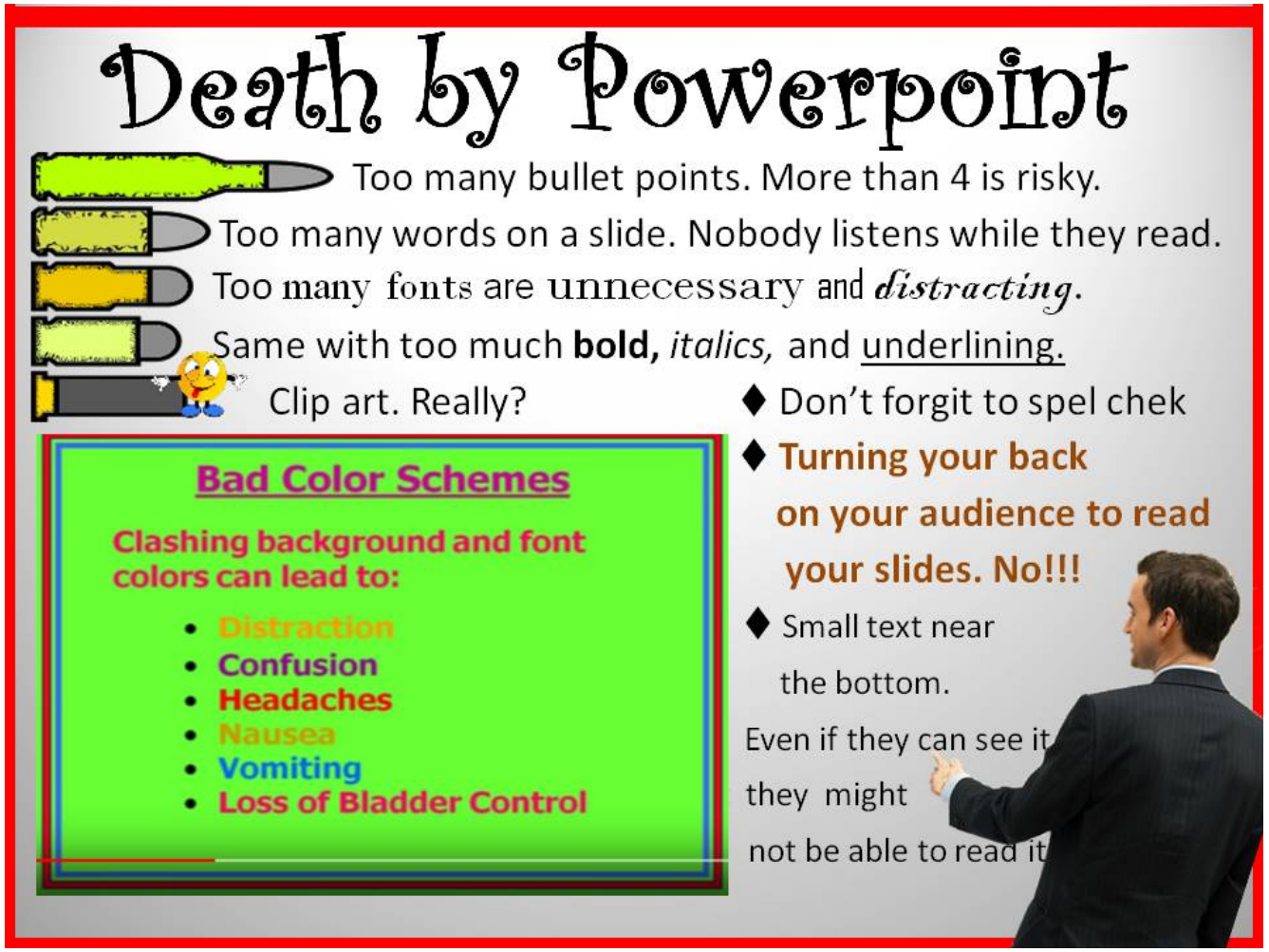
- Talk to the audience, not the screen
- Establish eye contact with (all) the audience
- Show confidence
- Clear pronunciation
- No chewing gum
- Hands not in the trouser pockets
- No wild movement with the laser point



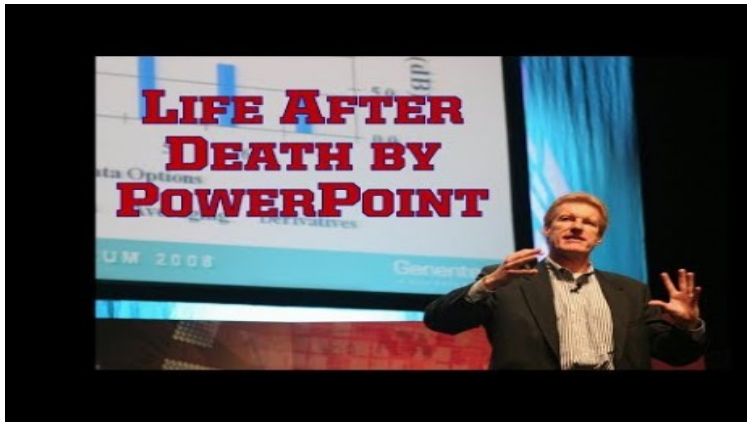
Communicating Your Science: How to Give a Scientific Presentation with Confidence by Grace LeMasters [YouTube]

10 Powerful Body Language Tips for your next Presentation by SOAP Presentations [slideshare]

Death by PowerPoint

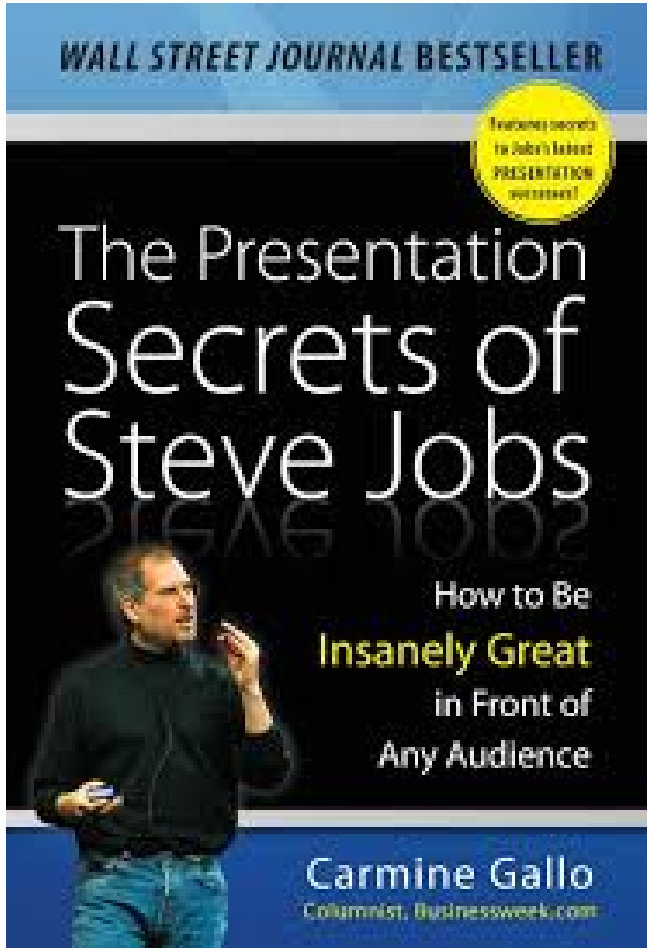


How to avoid death By PowerPoint by David JP Phillips [YouTube]



Life After Death by PowerPoint (Corporate Comedy Video) by Don McMillan [YouTube]

More tips



Adapt to scientific case!

Seth Godin

[The Godin method]
[Really Bad PowerPoint]

Good luck!

This presentation uses resources from flaticon.com