



# How to give a talk (in CS)

Holger Schlingloff  
Humboldt University / Fraunhofer FIRST

with help from  
W. Reisig, I. Parberry, S. Glesner, ...

# Structure of this Talk

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- Motivation
- Background and preparation
- How to give a talk
- Summary and outlook

# Motivation

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- Purpose of a seminar: **practicing to talk**
- *Non scholae, sed vitae ...*
  - engineers (esp. computer scientists) have a reputation of being “nerds”
  - social scientists / business engineers can do nothing but talk – they get the good jobs
  - “soft skills” are often more important than “hard skills”, even and especially in CS!
- We all know “how not to give a talk (in CS)”
- **If others can do it well, you can do it as well!**

# When Do You Need Presentation Skills

- Masters / doctoral thesis' presentation
- Job interview
- Reporting of project results
- Conference presentation
- Lectures and tutorials
- Advertising an idea to someone with money
- Finding a partner for life
- ...



# Related Topics

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- How to write a dissertation (→ Sunday)
- How to work in science, what are scientific methods and results
- What are CS specific questions, how to present theory results
- What to expect from a supervisor / mentor
- ...

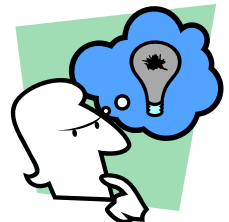
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# Usually, in a Student Talk ...

- ... the speaker is scared
- ... the speaker tries to get it over with
- ... the speaker covers each and everything
- ... the speaker echoes the given text source
  
- ... the audience is bored
- ... the audience is not interested
- ... the audience is quiet
  
- ... the supervisor is frustrated
- ... the supervisor has to assign grades



# Can We Improve on That?

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- Your lecture is a chance to make things better!
- You have an interesting subject! It is scientifically and industrially relevant, it will alter the course of the world!
- You can use this time to practise things useful for your own life! It is a unique chance!
- Not the seminar is important, you are! This is your chance to present yourself, your preparation, your skills, your personality!
- Nobody will hurt you here, all others are in the same situation as you are! You can use the opportunity to give and take some valuable feedback!

# Preparation

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- You all have your slides, so I won't talk on
  - **structure:** content, intro, main, summary
  - **style:** header, one thought, max. 7 items, ...
  - **layout:** font size >18pt, decent colouring, ...
  - **formulation:** keywords, short formulas, ...
  - **design:** meaningful graphics, clipart, ...
  - **presentation:** overlays, changes, ...
- Have you considered using the whiteboard?
  - tablet PC as the ultimate presentation aid?
  - multi-media means using multiple media!



# Before You Begin...

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- Make sure the technology is working
  - **YOU** are responsible for your notebook
  - **YOU** are responsible for the projector
  - **YOU** are responsible for the whiteboard
- Make sure everything else is ok
  - need a glass of water?
  - need to take off or put on your sweater?
  - need something to point or hold in hands?

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- You can
  - for *any* subject
  - to *any* audience
  - in *any* time framegive a meaningful talk
- Method
  - know your subject
  - know your audience
  - know your timing

# Know Your Subject

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- You have read and understood your chapter, so explain what you understood!
  - not: “I considered this difficult, why should it be easy for the audience”
  - not: “I haven’t understood this, so I’ll try to get around it”
  - why do you give the talk, what is the purpose?
- Don’t try to cover your topic, uncover it!
  - not: “There is much more to say, so I’ll jam in as much as possible”
  - select a relevant example, not the general case
  - one main thought, several hints
  - background knowledge

# Know Your Audience

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- The audience wants to be entertained
  - what is the added value of your talk compared to reading the book or watching a recorded lecture?
- Three levels of information in each talk
  - introductory (what is it about)
  - intermediate (what are the main aspects)
  - advanced (what are the details)
- At most one main idea
  - “tell them what you’ll tell them, then tell them, then tell them what you’ve told them”
  - be self-contained, but not boring

# Know Your Timing

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- Don't go over time
  - two to three minutes per slide (w/o toc)
  - the slides guide your talk, don't jump back and forth
    - nowadays it's easy to copy!
- Don't leave anything out, don't hide slides
  - no overlays, no secrets
  - skipping slides only in extreme cases
  - demos are impressive, but risky!
- Leave room for discussion
  - you may even provoke discussion

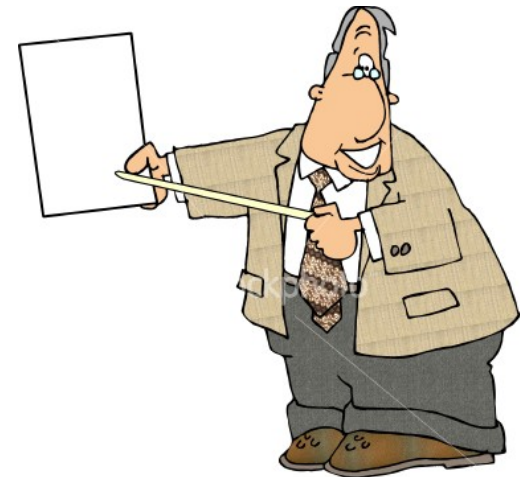
# Presentation Tricks

- Capture attention
  - examples from everyday life
  - comparison to known situations
  - jokes, cartoons
- Arise interest
  - why is this important to know or understand?
  - what are the audience's personal benefits from this?
- Repeat, repeat, repeat
  - summarise, explain in other words
  - associate to a different context
- Try to capture late-comers
  - give clear hints when they can join in  
(we have seen that ... now we will look at ...)



# Rhetoric

- Be honest
  - show that you like what you're talking about
  - if you don't, then make a better suggestion
- Keep your voice adequate
  - don't whisper, don't shout
  - the accentuation supports the message
- Be spontaneous
  - a talk is not the playback of a recording
  - say it in your own words
- Be lively, but not hectic
  - a talk is a stage performance



# Body Language

- Be yourself: you are the focus of attention
  - don't hide behind your slides, don't stand aside
    - slides support the talk, they don't replace it
  - never talk with your back to the audience
    - always talk to your audience, not to the wall
- Try to form a bond with your audience
  - seek eye contact, read from the faces
    - distribute eye contact between several people
  - show your open hands
    - no barriers, no hiding
  - smile! 😊

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How to really support your talk with your body...

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# Summary and Outlook

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- Important aspects: subject, audience, timing
- Repetitions, built-in resumption points
- Committed but natural behaviour

➔ Let's see what you can make from that!

**Thank you for your attention!**