How to Give a Talk

© João Pereira

Structure

- Motivation

- Background and preparation

- How to give a talk

- Structure of the talk

Motivation

- Purpose of oral presentations: **practicing to talk**

- 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

- Conference presentation

- Lectures and tutorials

- Job interview

- Reporting of project results

- Advertising an idea to someone with money

- Finding a partner for life

- …

Software Testing and Validation

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 teacher is frustrated
- … the teacher has to assign grades

Software Testing and Validation
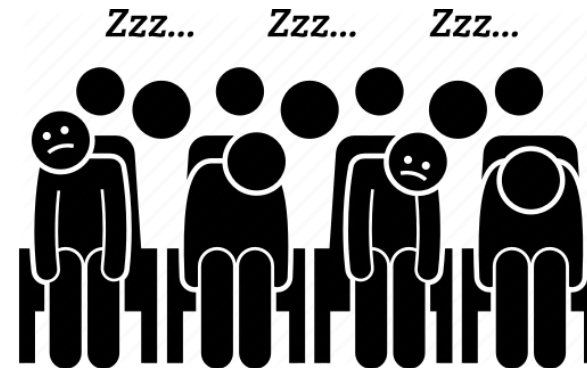
Can we improve on that?

- Your lecture is a chance to make things better!

1. You have an interesting subject! It is scientifically and industrially relevant, it will alter the course of the world!

2. 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!

Before you begin

- 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?
  - have a local copy of the presentation

How to Give a Great Talk

- Method
  - Know your subject

  - Know your audience

  - Know your timing

Software Testing and Validation

Know your Subject

- You have read and understood your paper, 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

Known your audience

- 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

Know your timing

- 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!
  - 25-30 minutes per talk

- Don't leave anything out, don't hide slides
  - no secrets
  - skipping slides only in extreme cases
  - demos are impressive, but risky!

- Leave room for discussion
  - you may even provoke discussion

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! ☺️
    - A lot:

☺️ ☺️ ☺️ ☺️ ☺️ ☺️ ☺️ ☺️ ☺️
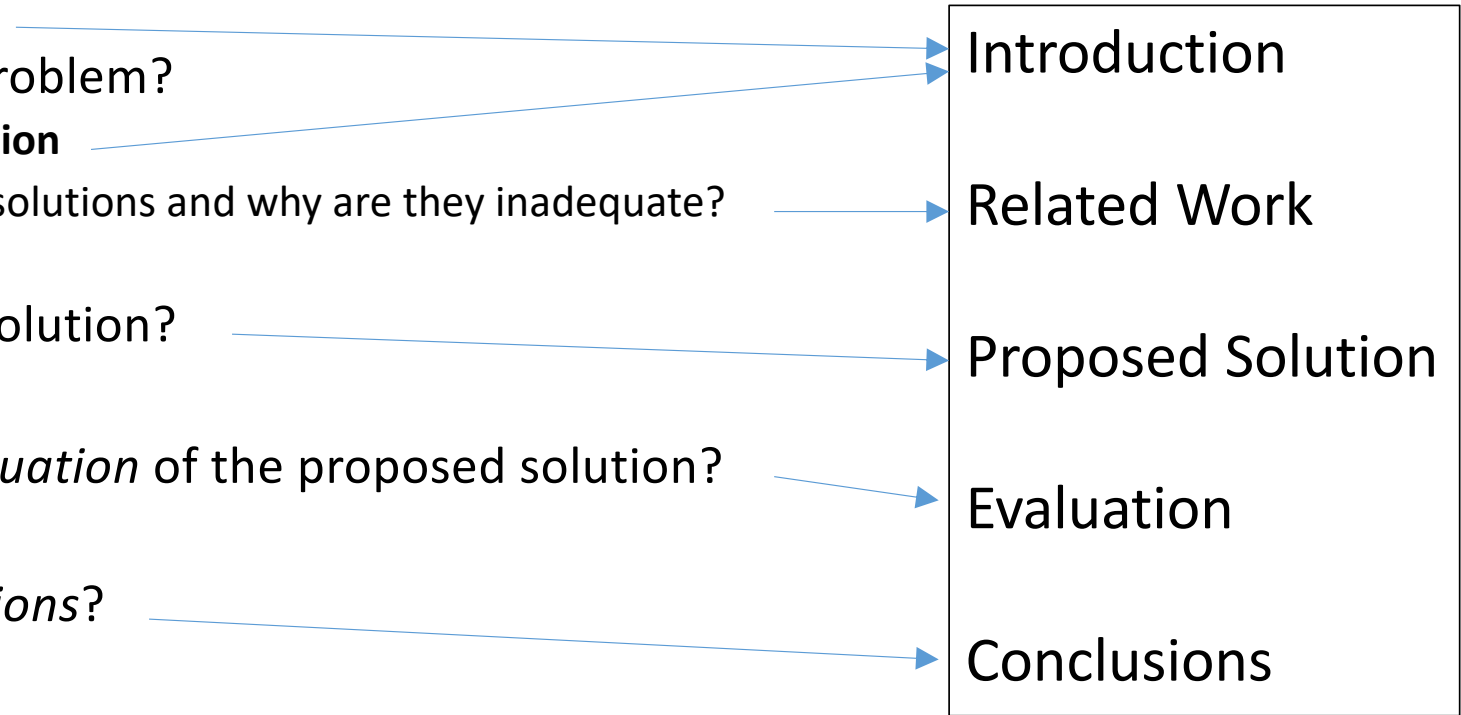
Software Testing and Validation

Structure of the Talk - 1

- Reading research papers can be challenging
  - Information is very condensed

- Need to read paper several times

- May require to read other papers

- Usual structure
  - **Introduction**
  - **Proposed solution**
  - **Evaluation**
  - **Related work**
  - **Conclusions**

Structure of the Talk - 2

- Your talk should answer the following questions:
  - Context of the work?
  - What is the technical problem?
    - Why is it hard? **Motivation**
    - What are the previous solutions and why are they inadequate?
  - What is the proposed solution?
  - What is the work's *evaluation* of the proposed solution?
  - What are the *contributions*?

Introduction

Related Work

Proposed Solution

Evaluation

Conclusions

Structure of the Talk - 3

- Conclusions
  - What was achieved

  - What are *future directions* for this research?
    - Identified by the authors
    - And identified by you

  - What is your analysis of the identified problem, idea and evaluation?
    - Is this a good idea?
    - Does it have flaws?
    - Or controversial ideas?

Software Testing and Validation