Seminar Advanced Computer Architecture

How to Give a Good Talk

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Why are talks are important

• the computer scientist
  – is a socially handicapped nerd
  – hides behind his computer
  – is incapable of communicating and leading

• the master of business and engineering
  – is a non-serious show man
  – speaks in content-less phrase
  – is capable of asserting himself
  – becomes the boss of the computer scientist

• these are classic stereotypes, but there is some truth in this observation
• the problem of giving a talk
• general comments
• technical preparation
• mental preparation

• acknowledgement
  – this lecture builds on materials by Holger Karl
The problem of giving a talk

- the ordinary seminar talk
  - scares the presenter
  - makes the presenter want to get over the talk as quickly as possible, no matter how
  - bores the audience
  - frustrates the supervisor

... however, the talk offers the presenter a rare opportunity to practice something very important
Control take away message

• fatal psychology
  – "what was difficult for me, shall also torture the audience"
  – "I didn't understand it, hence I will talk around it"

• but you can say something useful
  – for every topic
  – and every audience
  – and within any timeframe

• the listener takes away one thought
  – and you can control which thought
Goal of a talk

• don't:
  – deceive with your own intelligence
  – tell everything about one topic
  – present all technical details

• but:
  – convey an intuition, an illustration of an idea
  – create a desire for more
  – involve, inspire and excite the listeners
the AIDA principle

<table>
<thead>
<tr>
<th>keyword</th>
<th>goal</th>
<th>method</th>
</tr>
</thead>
<tbody>
<tr>
<td>attention</td>
<td>attract attention</td>
<td>surprising illustration or example</td>
</tr>
<tr>
<td>interest</td>
<td>attract interest</td>
<td>presentation of the current (known to the</td>
</tr>
<tr>
<td></td>
<td></td>
<td>listeners) situation...</td>
</tr>
<tr>
<td>desire</td>
<td>create a desire for</td>
<td>... complemented by possible improvements</td>
</tr>
<tr>
<td></td>
<td>change</td>
<td></td>
</tr>
<tr>
<td>action</td>
<td>discuss possibilities to</td>
<td>explain steps, which need to be followed to</td>
</tr>
<tr>
<td></td>
<td>satisfy these desires</td>
<td>reach the goal</td>
</tr>
</tbody>
</table>
Structure of a talk

• start: depict the problem vividly (attention)
  – why should the listener be attentive?
  – example!
  – present an overview of the talk (informative)
  – say, what you will be saying

• motivation/introduction (interest/desire)
  – clear formulation of the goal, the question, the problem of this talk
  – be specific, state a clear goal for the talk
Structure of a talk (2)

• say what you have to say (desire/action)
  – clearly answer the raised questions

• now and then until now ....
  now we will ...
  offers orientation, rescue point for lost listeners

• the end
  – summary: We have reached the following:...
  – say, what you have said
Major goals of a talk

• in descending importance
  – keep the audience awake and attentive
  – explain what the main problem of the talk is
    ▪ give examples!
  – explain the general approach – if possible
  – the little, dirty details – if still possible

• prefer a narrow/deep over a broad/shallow presentation
Atmosphere

- a talk is a conversation
  not a record

- listeners talk to them
  look at them, read in their faces

- (re)include lost listeners
  example
  comparison
  repetition
The common thread

- find a reasonable order of contents
- the order is frequently not canonical
- try different variants
- avoid
  - cross-references "I will discuss this later"
  - repetitions
  - digressions
• usually more material is available than can be presented

• therefore
  – chose a main emphasis
  – select what material to present
  – show an example instead of the general case

• don't try to discuss everything
  – 20% motivation
  – 80% main idea
Technical preparation

• available time slot?

• how many listeners? what prior knowledge?
  – desired audience: lively, knowledgable, excited
  – real audience: no clue, sleepy, just back from lunch
    → wake them up

• previous speakers with similar topic?
Black board or slides?

• black board
  – enforces good speed
  – requires to speak and write concurrently
  – more difficult than slides

• slides
  – require better preparation
  – enable more possibilities
  – tempt presenter to progress too rapidly
  – for seminar, slides are usually appropriate
• heading
• one topic – one slide (don't be afraid of empty space)
• max 2 slides per topic (restructure if appropriate)
• focus on core statements
• no full sentences and correct grammar required
• consistency (capitalization, phrasing, numeration, ...)

Good slide
Bad slides

- longwinded, nested sentences, in particular those in which – as it is the case here – the verb, separated from the subject, is at the very last position are completely inappropriate for presentations
- this is a computer output, which you probably cannot read
- many different colors, fonts and formats reduce the *readability*
- fill the slide completely to the border
  - reduce spacing to fit everything to the slide
  - write everything very very small to make sure that everything fits to the slide
  - everybody must have good vision, or should at least wear glasses
  - add some unimportant text

*a very important figure (unfortunately distorted)*

meaningless clipart
General slide layout

• use landscape format

• font sizes
  – sufficiently large
  – use sans serif types (Helvetica, Arial, etc)

  16 pt 18 pt 20 pt 24 pt 28 pt 32 pt 36 pt 48 pt

• use animations with care
Illustrations

• "an image says more than 1000 words"

• by cautious with embellishments
  – fancy 3D charts and animations
  – shadows and reflections
  – font extravaganza

• every illustration should have a recognizable reason for being there
Talking

• speak without notes
  – you may use the slide as a cheat sheet, but always connect to the audience

• use slide as guidance without reading it out loudly

• walk listeners through the slides using
  – pointer
  – laser pointer
  – pencil when using overhead slides

• memorize first and last sentences if this provides more security for you
Finding a good pace

• rule of thumb: 2 min / slide

• speak slowly

• do a rehearsal talk

• if you run out of time, skip materials

• never: accelerate the speed of presentation
• symptoms before the talk: nervousness, cold sweat, ...
  – take a deep breath
  – learn starting sentences by heart
  – everybody has this problem

• during the talk: radiate enthusiasm
  – gives audience a reason to listen
  – wakes up the audience
  – listeners become more open-minded and attentive
  – relaxes the presenter
• make eye contact
  – look for some "nodders"

• questions are a compliment!
  – at least somebody is still listening
  – invite audience to ask questions
  – interact with the listeners

• finish on time!
  – it's better to skip materials than to exceed the time limit
  – don't ask: "can I go on for some time?"
  – if you run out of time, wrap up your presentation, advance to the summary slide
Summary

- the skill to present something well is (frequently) more important than having very specialized knowledge

- the quality of an average talk is so low, that it is fairly easy to stand out

- you can improve your presentation skills if you really want