

## How to give good seminar presentations – some hints

Friedemann Mattern , ETH Zurich



February 2014

### Ubicomp Seminar Topics FS 2014 «Smart Environments»

0. **How to give a talk**
1. Smart heating: energy savings through occupancy sensing and prediction  
**25.02.2014** [Marc Hüppin](#)
2. Office of the future: smart workspaces  
**04.03.2014** [Carlo Beltrame](#)
3. The use of radio frequency signals for sensing, interaction and power transfer  
**11.03.2014** [Roland Meyer](#)
4. Smart environments without cameras: electrical field sensing for human-computer interaction  
**18.03.2014** [Marcel Geppert](#)
5. Smart glasses: technology and applications  
**25.03.2014** [Hermann Schweizer](#)
6. Smart glasses: interaction, privacy and social implications  
**01.04.2014** [Marica Bertarini](#)
7. Vision-based systems for autonomous driving and mobile robots navigation  
**08.04.2014** [Lukas Häfliger](#)
8. Domestic robots: a case study on security in ubiquitous computing  
**15.04.2014** [Thomas Knell](#)
9. Communication with smart objects  
**29.04.2014** [Dominik Kovacs](#)
10. Smart energy: electricity usage and demand side management in households  
**06.05.2014** [Ganesh Ramanathan](#)
11. Speech recognition in systems for human-computer interaction  
**13.05.2014** [Niklas Hofmann](#)
12. Context-awareness and context modeling  
**20.05.2014** [Sandro Lombardi](#)
13. Gesture recognition: Hand pose estimation  
**27.05.2014** [Adrian Spurr](#)

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### Good seminar presentations – why should we care?

- **Presentation skills** are required in **professional life**
  - Present yourself, your research, your company, an idea, a product...
  - You are often (implicitly) evaluated based on a presentation
- In the context of this seminar, learn how to present **scientific content**
- Also learn
  - How to digest **different knowledge** sources and make a consistent picture out of it
  - To present the result in a **structured** way, adequate for the audience
  - To make and defend **your point** in front of a group

## The 80-20 rule of presentations

- 80% presentation, 20% content?
  - **No!**
- Clearly, **content is crucial**
- But content does not get through if presentation is
  - Confusing
  - Boring
  - Too advanced (or too easy) for the audience
  - Too long (or too short)
  - ...

9

## Outline of this talk

- Basics 
- Preparing the slides
- Giving the presentation

10

## Goal: Maximize benefit for the audience

- ((For once, you are a teacher!))
  - Consider structure, layout, design of the presentation
  - What can be assumed the audience knows? What not?
  - How can we arouse interest in the audience?
  - Maximize knowledge transfer
- 
- Think of your audience – assume you are part of it

11

## When preparing a talk...

- For **whom** is the presentation?
    - Target audience, knowledge, expectations
  - What is the **message** you want to convey?
  - What is the **purpose** of your presentation?
    - Teach, inspire, sell, convince,...?
  - What (technical) **equipment** do you have available?
    - Room, projector, blackboard, light, ...
- 
- In the context of **this seminar**, the answers should be given!

12

## Academic presentations

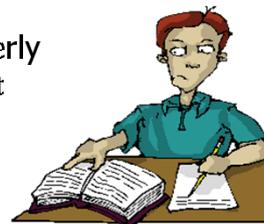
- **Limited time** (e.g., 20, 30, or 45 minutes)
  - Fix your milestones
  - Know when you should be where in your talk
  - Be prepared to questions from the audience delaying your talk
  - Be ready to shorten your talk dynamically
- **Message**
  - A novel scientific result, a report on your and/or others' work
  - Make clear what is **your contribution** and what is general knowledge or results achieved by **others**



13

## Plagiarism

- Make a clear difference between **your** results and those of **others**
- Report **all references** and cite them properly
  - Briefly in the talk, but fully in the written report
- **Plagiarism** has many forms
  - Copy & paste without explicit citation
  - Paraphrase of text without reference
  - Unacknowledged adoption of ideas, structure, design, ...



14

## Keep your presentation prosaic, objective, factual

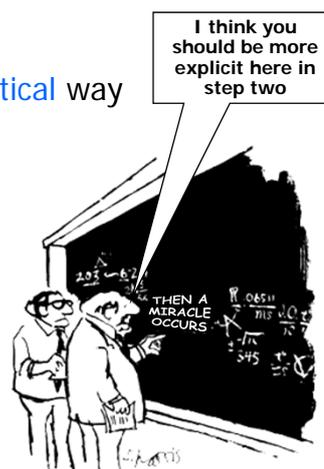
- Convince with **arguments**, not with rhetoric
- You are **not a salesperson**



15

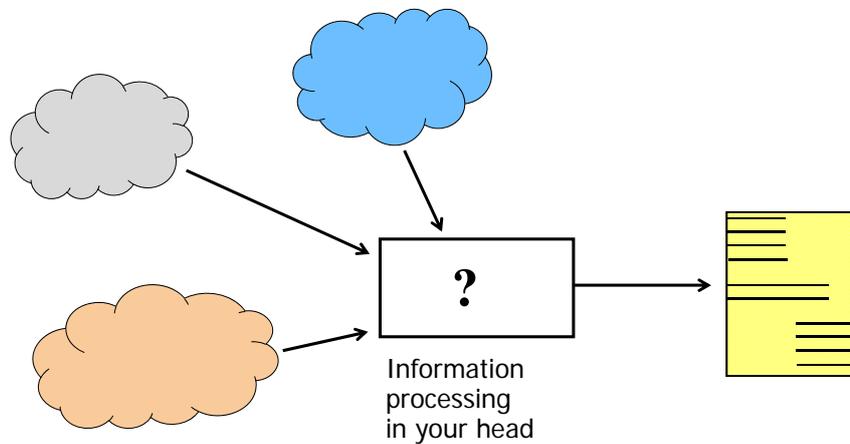
## Academic presentations (II)

- Try to **convince**, not to persuade
- Read and use the **literature** in a **critical** way
  - The authors are *almost* always right
- Read and use **different references**
  - Typically, scientific articles are more reliable than information on the Web
- You should **understand 100%** of what you are saying



16

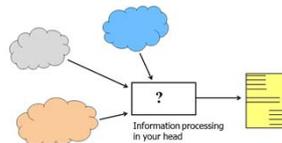
## Intellectual challenge and clarity of thought



18

## Information *processing*

- Use your **own words**
  - Do not paraphrase or just translate from other languages
- Be careful with **foreign languages**
  - E.g., "Operating system" (EN) → Betriebssystem (DE)
  - not: Operationssystem
- Focus on **relevant aspects**
  - Identification of "the" relevant aspects is the most important point
  - But give additional information or go into details when appropriate
- **Avoid abbreviations** and acronyms whenever possible



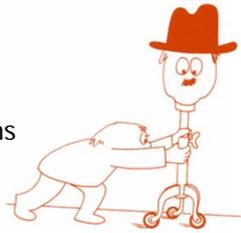
19

## Preparation



- **Observe** and evaluate other speakers
  - Do they do it well? Why? How?
- **Practice** your talk
  - Make a true "dress rehearsal"

- Test your presentation
  - Animations, colors, ...
- Know your audience
  - Competences, expectations
- Dress properly



20

## Preparation (II)

- Complete your preparation on time
  - Not just the night before...
- Be on time the day of the presentation
  - Take some time to check projector and laptop configuration
  - What if something does not work?
- Be prepared for spontaneous drawings
  - Clean the blackboard
  - Make sure chinks / markers are available

21

## Be prepared to questions and discussion

- Allow time for it
- Your answers should show that you are competent
  - How you reply to questions could be an important issue when your talk is used to evaluate you (e.g., as part of a job interview)



22

## Outline

- Basics ✓
- Preparing the slides ←
- Giving the presentation

24

## Slide layout

- Rule of thumb: only **one train of thoughts** per slide
  - Bullet points / key phrases better than complete sentences
- **Slide title** should summarize the content of the slide
  - In a meaningful and self-contained way
  - Sometimes people only read the title of a slide (→ newspaper headlines)
- For academic presentations **avoid logo**, name, date, etc. on every slide
  - This is not a sales pitch
  - Adds background noise
  - Risk of drawing off attention from content
  - But: Corporate design?

25

## Slide layout (II)

- **Font**
  - Sans serif (e.g., "Arial" or "Tahoma"), **not such a font**
  - Do not mix (too many) different fonts (size / style) on a slide
- **Font size**
  - Must be "big enough" (rule of thumb?)
  - 12pt, 16pt, 18pt, **20pt**, **24pt**, **28pt**
- **Bullet points**
  - Do not "exaggerate" (no more than ~7 main items per slide)

26

## Slide layout (III)

- **Avoid overloading** your slides
  - Not meant to provide full content
- Be careful (and frugal) with **animations**
- No point in quickly browsing through slides one has not enough time for presenting

27

## Images, plots, and diagrams instead of text

- *"A picture is worth a thousand words."*
  - But avoid too striking pictures (unless you want to shock / provoke your audience)
- **Plots / diagrams** must help you in making your point
  - They must be **easy** to explain / understand
- **Photographs** convey **emotions**,  
graphics and **drawings** convey **exactness**



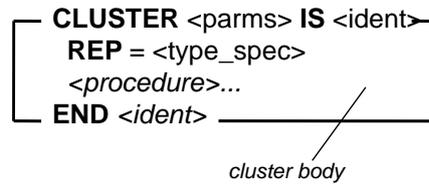
28

## Schemes and graphics, an example

A cluster has the following form:

```

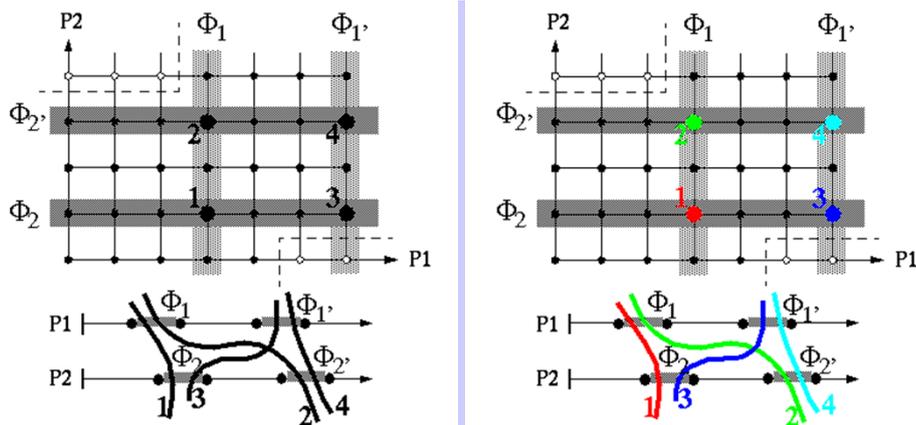
ident = CLUSTER [parms] IS ident
  cluster_body
END ident
cluster_body = REP = type_spec
  routine {routine}
routine = procedure
    
```



- Much better:
- Striking
  - Less text
  - Less forward references

29

## The power of colors



30

## Outline

- Basics ✓
- Preparing the slides ✓
- Giving the presentation ←

31

## Start with an **outline** of the talk?

- A matter of taste
- Do not spend too much time explaining the outline
  - High risk of boring your audience
  - List few, self-explaining items
- A (negative) example:
  - Introduction [Necessary?]
  - Topic 1
    - Subtopic 1 bla bla [Avoid nested bullet points in the outline!]
  - Topic 2
  - ...
  - Topic 7 [too many items!]
  - Summary [Necessary?]

32

## Make a good start



- **Be happy!**
- **Look at your audience**
  - Not at slides, laptop, window, ...
  - Not at one single person (e.g., professor)
- **Friendly start of the talk**
  - Welcome
  - Present yourself
  - Present your topic
  - If applicable, put your presentation in context (e.g., relation to previous presentations in the seminar)

33

## Beware of yourself!

- **Look**
  - At your audience
- **Speak**
  - Slowly (enough)
  - Loud (enough)
  - Fluently
  - Free (do not memorize your talk!)
  - Pause if necessary or appropriate
- **Move**
  - Slowly (avoid hopping around)
  - Use your mimic (hands / body)
  - Do not stand between the projector and the projected area

34

## During the presentation

- **Engage** with your audience
  - Eye contact
  - Questions
  - Provocations, contradictions, surprises? (risky, but effective)
- **Motivate** your audience
  - Why is your presentation worth listening to?
  - Why are you worth listening to?
- **Remain authentic**, stay calm, be flexible
  - Be ready to react to questions, interruptions

35

## Almost done

- Do not leave important questions unanswered at the end of the presentation
  - Open issues should be explicitly addressed (e.g., future work)
- Provide a summary of the main message of your presentation
  - Try to close the circle: link the results at the end to the motivating questions at the beginning
- Make clear that the end of the talk has come
  - Keep on looking at the audience
  - Thank and the audience
  - Ask for questions

36

## Summary

- Understand your topic
- Be well prepared
- Structure and balance your talk well
- Think of your audience
- Keep the time
- Stay calm, be flexible
- ... and it will be a **great success!!**

37

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Pictures from: [www.leander.lib.tx.us/LILT/citing](http://www.leander.lib.tx.us/LILT/citing) and  
[www1.ku-eichstaett.de/PPF/PDMueller/lerntech/referat/](http://www1.ku-eichstaett.de/PPF/PDMueller/lerntech/referat/)

39