

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)
 - ...

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Outline of this talk

- Basics 
- Preparing the slides
- Giving the presentation

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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

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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!

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Academic presentations

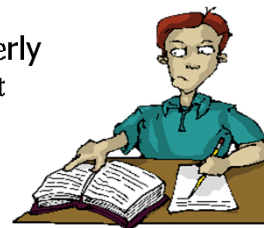
- **Limited time** (e.g., 20, 30, or 45 minutes)
 - Fix your milestones
 - Know when you should be where in your talk
 - Be prepared to questions from the audience delaying your talk
 - Be ready to shorten your talk dynamically
- **Message**
 - A novel scientific result, a report on your and/or others'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



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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, ...



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Keep your presentation prosaic, objective, factual

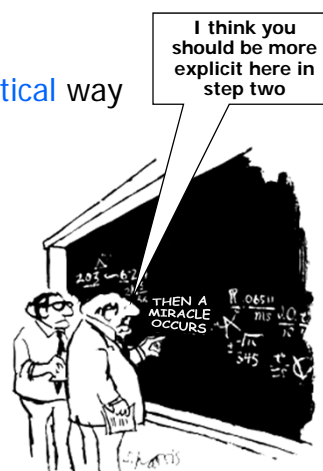
- Convince with **arguments**, not with rhetoric
- You are **not a salesperson**



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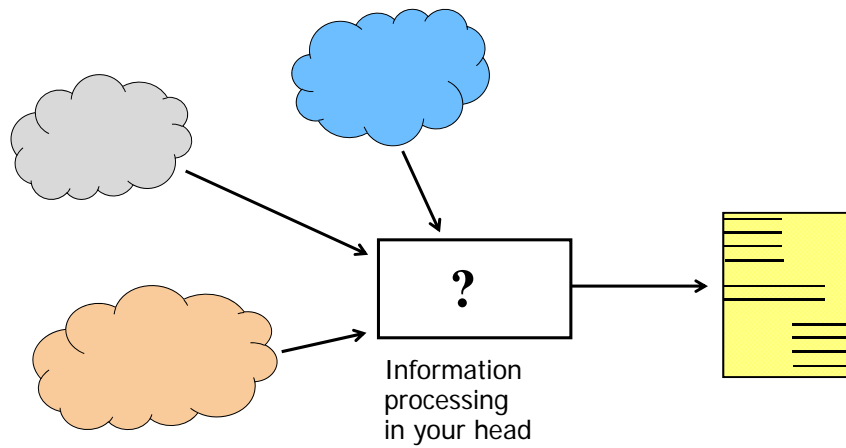
Academic presentations (II)

- 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



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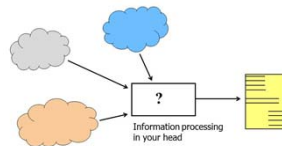
Intellectual challenge and clarity of thought



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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

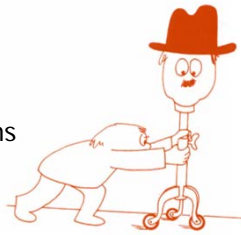


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Preparation



- **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



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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

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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)



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Outline

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

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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?

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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)

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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

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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**



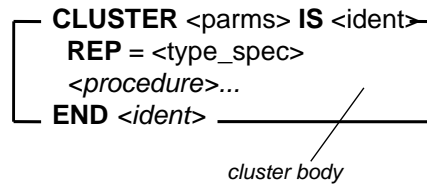
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Schemes and graphics, an example

A cluster has the following form:

```

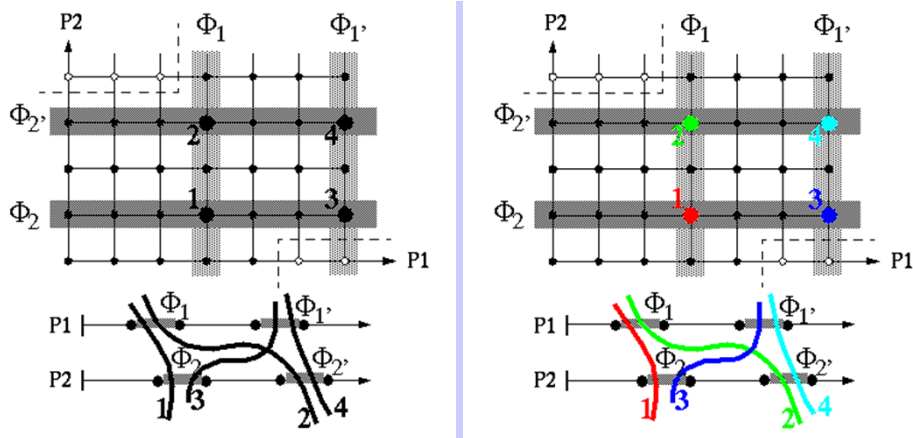
ident = CLUSTER [parms] IS ident
  cluster_body
END ident
cluster_body = REP = type_spec
  routine {routine}
routine = procedure
  
```



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

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The power of colors



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Outline

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

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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?]

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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)



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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

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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

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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

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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!!**

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

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