Slide 1

Technical Presentations

Advanced Functional Programming (04s1)

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Slide 2

Format of Presentations

- ➜ For four weeks, we will have two 1h presentations each Monday
- ➜ With discussion following each presentation
- ➜ We'll have a 15min break between the two presentations
- ➜ Marks for the presentations (20% of the course mark) are determined by peer review

Slide 3

For a good presentation, what do you think

- ➜ is important to do,
- ➜ should be avoided,
- ➜ makes a presentation interesting, and
- ➜ what makes a presentation boring?

Slide 4

Tools to Prepare Slides: Tradeoffs

Blackboard/Whiteboard:

- ➜ No need to prepare media in advance (does not mean that you don't need to prepare!)
- ➜ Extremely flexible, as you can easily improvise
- ➜ Time to write can impact presentation time:
  - Makes it unsuitable for brief/compact presentations
  - Being able to talk while you are writing takes some practice
  - Less of a problem if the math content is high
- ➜ Structuring of the written material requires some practice, too

Good, Old Handwritten Transparencies:

- ➜ Reliable
- ➜ Easy to do graphics
- ➜ Your handwriting should be better than mine
- ➜ Easy to do last minute changes

Slide 5

Computer-generated Printed Slides:

- ➜ Slides have to be prepared well in advance (e.g., before travelling to a conference)
- ➜ Graphics can be more of an effort

Computer-projected Presentation:

- ➜ Reliability can be a problem:
  - Make sure the equipment works
  - Check the quality of the projection
  - In important cases, have a back up presentation (e.g., printed slides)
- ➜ You can do last minute changes
- ➜ You can use overlays more effectively
- ➜ You can include other elements, such as, demos

Slide 6

Applications for Computer Presentations

PowerPoint:

- ➜ . . . or any similar WYSIWG
- ➜ The original only runs on legacy OSes
- ➜ Quick and easy for simple presentations
- ➜ Maths and program code doesn't look good out-of-the-box
- ➜ Fancy features are useful for marketing type presentations, but less so for technical talks

HTML/Web Browser:

- ➜ Not really designed for this purpose
- ➜ Full screen mode, font size, correct spacing can be difficult to achieve
- ➜ No support for overlays
- ➜ But such presentations are simple and quite portable

Slide 7

MagicPoint:

- ➜ Runs on Unix systems
- ➜ Script-like language for presentations
- ➜ Overlays, colours, embedded programs, etc. all supported
- ➜ Simple math can be done via LaTeX includes

`http://www.mew.org/MagicPoint/`

Slide 8

LaTeX:

- ➜ Excellent type setting
- ➜ Excellent support for maths and program code
- ➜ TeX's macro language can save a lot of work
- ➜ Overlays and animation require extra packages or tools
- ➜ Graphics via external program or graphics packages (such as, PSTricks)
- ➜ Convenient when turning a paper (done with LaTeX) into a presentation
- ➜ PostScript and PDF presentation are very portable (all you need is a random machine with a previewer installed)

Slide 9

LaTeX Packages for Presentations:

- `seminar` style (available in good LaTeX distributions)
- `chaksem` class:

  `http://www.cse.unsw.edu.au/~chak/presentation/presentation.html`

  (Display with `pspresent` or `glpresent`).
- Prosper:

  `http://prosper.sourceforge.net/`
- P^4:

  `http://www-sp.iti.informatik.tu-darmstadt.de/software/ppower4/`

Slide 10

Structuring a Talk

What to consider first?

① How much time do you have?
② What is your target audience (their background, interests, etc)?

Decisions based on this:

- How many slides can you have? (rough figure: 2-3min/slide)
- What background material do you have to include?
- Do you want to include any demos etc?
- What are the main technical points you want to get across? (Can only be very few!)

What should be the first thing in your talk?

- Table of contents? No!
- Motivate your topic
- Make it interesting; preferably with an easy to understand (and thought provoking) example

Slide 11

Overall Structure:

① Motivation
② Background
③ Technical points with interleaved examples
④ Summary

Important is

- you can only have few technical key points and
- you need to clearly point out what these are.

Slide 12

Presentation Techniques

What are the things you hate most about talks or lectures?

- Fonts too small; too much material on each slide
- Low voice; not looking at the audience
- Standing by the projector and obscuring the view
- Pointing at the transparencies on the projector, rather than at the projection
- Excessive use of colours and colours with little contrast
- Monotonous presentation; no emphasis; no highlights
- Zapping the audience with a laser pointer
- Lack of examples and lack of explanations appealing at intuition
- Confusing, unstructured presentation

Slide 13

How do good slides look like?

- Large fonts
- Itemised points
- Consistent use of a few colours (e.g., one colour for headings and one colour to emphasise a phrase)
- If in doubt whether the material fits on one slide, split it over two
- Use graphical illustrations where possible

How to use overlays?

- To separate questions from the answers (facilitates interaction and gives the audience the opportunity to think)
- For stepwise presentation of an example or for program development
- For stepwise development of a mathematical derivation or similar material
- And to. . . emphasise a point
- But don't overdo it! (Too much fiddling with the computer etc.)

Slide 14

Body language during a talk:

- Assume an open, confident posture and look at the audience
- Don't obstruct the view at the projection
- Point at the projection; don't move to quickly when pointing
- Use gestures to guide your explanations
- Don't fiddle around with things that you hold in your hand
- Don't talk in a monotonous voice. . . unless you want to send your audience into deep sleep
- Don't sit down!

Slide 15

Tips & Tricks:

① Memorise the first two to three sentences of your presentation for a smooth start

② Have a cheat sheet, but don't read the presentation off, unless you absolutely must

③ Jokes are good, but if possible they should emphasis a technical point

④ Move around; don't just stand at one spot (less monotonous ➨ less people fall asleep)

⑤ Questions are a good way of getting attention and can help prevent the audience falling asleep