Senior Design Project – SDP12

Presentations

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Preliminary Design Review

- Held 10/12–10/20
- Review board
  - 2 professors
  - Your advisor (silent participant)
- 1-hour evaluation of your project by review board
  - 20 minutes presentation
  - 20 minutes questions and answers
  - 20 minutes review board “huddle”
- Evaluation form
  - Scoring of different aspects
  - Returned to your advisor
SDP10 Presentations

- Presentations are important for PDR
  - Presentation has major impact on your grade
  - Poor presentation kills the best projects

- Presentations are important in the real world
  - Teaches you how to explain your project to non-experts
  - Present in an engaging manner
  - You will need these skills for your interview and job

- Oral communication is as important as technical knowledge

- Everybody can give a good presentation
  - Requires lots of preparation and care
Presentation Skills

- Presentations are different from written reports
  - Many non-technical issues are important
  - Lots of etiquette

- Common problems can be avoided easily
  - Not enough introduction
  - Too much detail
  - Poor, confusing structure of talk

- Today: how to prepare and deliver a good presentation
Outline

- Introduction
- Preparing your Presentation
  - Presentation Structure
  - Timing
  - Slides
  - Delivery
  - Questions
- Dos and Don’ts
- Practice
- PDR
Structure of Presentation

- Audience wants to understand
  - What is your project about?
  - Why is this an interesting problem?
  - What are the major challenges and how do you solve them?
  - How are you progressing?
  - Any other interesting details (e.g., budget, unique technologies)

- You need to present in layers
  - Everybody needs to understand the key points. Everybody.
  - You should show some technical detail to get credibility

- Your project is not a homework problem
  - The technical solution is not everything
  - You are in charge of explaining everything
  - You need to put your work into context
Structure of Presentation

- Start with a simple scenario/example/figure

- Present in a top-down/hierarchical style
  - Focus on main aspects of your project
  - Explain details in the context of each aspect
  - Use clear transitions to keep audience on track

- Transitions are very, very important
  - Allows you to summarize what has been said
  - Lets you give scope for the next slide
  - Transition is possibly single most important part of any slide

- Adjust depth of explanation to your audience
  - Audience is well-versed in engineering
  - Don’t assume audience knows any details of your project
  - Be ready to explain everything if necessary
Timing

- Do not go over time.
  - Plan 1-2 minutes per slide

- Practice, practice, practice
  - Practice looking at watch
  - Be aware what time talk should finish

- Prepare for 20% less time than you have
  - Leaves some room for questions, etc.

- Sometimes nervousness causes you to talk faster
  - Don’t count on it 😊

- If you are running out of time
  - Don’t talk faster (well, maybe a bit)
  - Leave out material
  - If you are completely out of time: skip to end and finish up
Slides

- PowerPoint with projection
- Use large fonts
  - Title: 36-48 point font
  - Text: 18-24 point font
- Use consistent formatting
  - Same font for same type of bullets
  - Limited number of fonts, color, etc.
- Grammar
  - Pay close attention to spelling and grammar
  - Common errors:
    » It’s vs. its; there vs. their vs. they’re; a vs. an; etc.
Delivery

- Speak SLOWLY and clearly
  - If you’re nervous, you’ll speak incredibly fast
  - Try to speak normal speed
  - It’s ok to take a breath and have a few seconds of pause

- Don’t read from notes
  - Think about what you need to say
  - Say how it feels natural
  - The shorter the sentences, the easier things get

- Stay cool
  - Easier said than done
  - Everybody is supportive and wants you to succeed

- You are the expert!
  - The audience knows a lot, but you know your project best
Delivery

- Keep eye contact with audience
  - Face audience
  - Ensure setup of laptop/projector allows you to face audience
  - If you prefer, look at base of nose between eyes

- Appearance
  - Dress nicely (business casual)
  - Don’t overdo it
  - Show respect

- Keep your hands in front of you
  - Hold pen/pointer/notes in hand if you prefer
  - Don’t fidget with stuff

- Practice first and last sentence of presentation
Questions

- Questions and answers at the end of presentation
  - Important part of your presentation

- Make sure you understand the question
  - If not, ask to have it rephrased

- Answer the question down to the point
  - Don’t ramble (if something is missing, you’ll get a follow-up anyway)
  - Let team members answer question in their area of expertise

- If suitable go back to a previous slide
  - Know your keyboard shortcuts, so it doesn’t take too long

- If you don’t know, say so. Do not make something up.
  - It’s ok to think about it for a few seconds
Teamwork

- SDP presentations are unusual due to teamwork
  - Everybody is expected to present

- Introduce everybody at the beginning
  - State names clearly
  - Make sure it is obvious who you are talking about

- Switch speakers as little as possible
  - Everybody should present a major part of the project

- Have good transitions between speakers

- State the detailed roles of each member
  - Technical and administrative roles
Dos and Don’ts

- Do test the equipment
  - Practice with the same equipment as you will use for presentation
  - Know the maximum resolution of projector
  - Be familiar with keyboard shortcuts for PowerPoint
  - Be careful with last-minute changes

- Do use a pointer
  - Preferably use “stick”
  - Laser enhances your trembling and can make audience dizzy
  - DO NOT POINT LASER AT AUDIENCE. EVER.

- Do not use mouse pointer as pointer. Ever.
  - Especially when enabling Trackpad for double-tap = click
Dos and Don’ts

- Do use illustrations and graphs
  - Be careful with clip-art
    » Use illustrations only if directly related to your project
    » Note that everybody has seen every MS clipart that there is
  - Stay professional
    » Do not animate the appearance of text (no fly-in etc.)
    » Do not use any sound effects. Ever.

- Don’t write full sentences
  - Nobody will read full text
  - Should be detailed enough to “save” you when you blank

- Don’t use unnecessary abbreviations
  - This is not Instant Messenger
  - Don’t use ‘4’, ‘u’, ‘r’ etc. Ever.
Dos and Don’ts

- Don’t do anything of the following:
  - Vulgar and inappropriate humor
  - Swearing and blasphemy
  - Tell weak jokes and laugh out loud at them
  - Appear to be bored or otherwise showing disrespect
  - Talk longer than your allotted time

- Do be subtle
  - All “presentation tricks” should be smooth and non-obvious
Sources

- “Terrible Presentations (and how to not give one)”
  - http://www.ece.wisc.edu/~kati/PresentationGuide.ppt

- “Oral Presentation Advice”

- “How to Give a Bad Talk”
  - http://www.cs.wisc.edu/~markhill/conference-talk.html#badtalk
Practice

Practice “30-second elevator pitch”

Think on how you explain to a non-expert

• What are you doing
• Why is it interesting
• What is the challenge
• How do you solve it
• The current status and outlook for the project
Preparing you PDR Presentation

- Start today. Really.
  - Develop structure
  - Decide on content
  - Make some slides
  - Practice, identify problems, fix, repeat.

- You should have your final version three days before the presentation
  - Make sure everyone on the team has practiced
  - Gives you confidence

- Always be critical and see how you can improve
PDR Preparations

- Your presentation must address
  - Design alternatives
  - Realistic constraints
  - Argument for feasibility of your design
  - Team roles (technical and administrative)

- MDR specifications
  - Very *specific*
  - What will your prototype be able to do?
    » Focus on most essential, technically challenging portion of project
  - Note: it’s better to under-promise and over-deliver

- Handouts (1 per reviewer)
  - Problem statement
  - Requirement specification
  - Block diagram