Giving Effective Presentations

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The Four Steps to Success

1. Decide **what to say**
2. Make **slides**
3. **Practice**
4. **Give** the talk
The Four Steps to Success

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DECIDING WHAT TO SAY
What does a proposal look like?

- Motivation
- Related work
- Methodology
- Initial Results
- Impact
What does a proposal look like?

• Motivation
  – what problem is being addressed and why is it important?
• Related work
• Methodology
• Initial Results
• Impact
What does a proposal look like?

• Motivation
• Related work
  – what approaches have people tried already?
  – why are these insufficient?
  – what elements of existing work will you build on?
• Methodology
• Initial Results
• Impact
What does a proposal look like?

- Motivation
- Related work
- Methodology
  - what do you propose to do?
  - what technical tools do you propose to use?
- Initial Results
- Impact
What does a proposal look like?

• Motivation
• Related work
• Methodology (specific to our class)
  – how will you formally model your scenario?
  – how would classical game theory analyze the question?
  – what important aspects of the problem would be missed by the classical analysis?
  – what behavioral model will you use?
  – what data will you use?
• Initial Results
• Impact
What does a proposal look like?

• Motivation
• Related work
• Methodology
• Initial Results
  – what have you *already learned* through preliminary analysis?
  – how do these findings *support the main thrust* of your proposed work?
  – what *challenges* do you anticipate facing, and what ideas do you have about how to address these?
• Impact
What does a proposal look like?

- Motivation
- Related work
- Methodology
- Initial Results
- Impact
  - what **benefits** would your proposed work bring?
  - what are some potential **downsides**?
  - what avenues will remain for **future work**?
Next, think about your audience

• What do you think the audience *already knows*, and what do they *need to know*?
  – don’t talk over their heads, don’t bore them

• How can you make your presentation *interactive* to help them connect to the topic?
  – examples
  – puzzles
  – games
  – polls
Organize all of this into a talk

• Decide which ideas are **most important**
  – structure the talk around these
  – don’t confuse these with the technical details

• Create a high-level **outline**
  – follow **proposal outline** unless you have a good reason
  – decide which elements to **emphasize**, which to elide
  – decide how much time to allocate to each section.

Then:

  • what should each section’s main message be?
  • can you illustrate with an intuitive example, picture, etc?
  • are your most interesting ideas coming through?
  • are you avoiding extraneous details?
MAKING SLIDES
Outline!

• Make a **slide-by-slide outline**
• **Refine** it until it’s perfect
  – much easier than changing polished slides later
• If a slide is getting too complex, **split it** in two
• Ensure the **key points** get delivered early
• Make sure the **flow is logical**
Context

• The most common mistake:
  – too much time on technical details
  – too little time on context

• Context:
  – what is the big idea?
  – what problem does it solve?
  – why is this problem important to solve?
  – how does it differ from other alternatives?
Slides: Organization

- Make the **talk’s structure** easy to figure out
  - outline slides
  - verbal reminders and transitions
- **One topic** per slide
- Each slide organized **like an outline**:
  - main points
    - sub points
- Keep text as **brief** as possible
Slides: Design

- **Clarity is the most important thing**
  - your slides don’t need to be beautiful, just effective
- **Legible**
- **Not too cluttered**
  - while they’re reading, they’re not listening
- **Visually interesting**
  - colour
  - pictures (but make a point, don’t distract)
- **Usually 1-3 minutes** per slide
PRACTICING
Practice!

• Memorize the **first little bit** (but not the rest)

• Actually **practice out loud**
  – don’t just read it in your head
  – have a real audience (but not the first time)
    • have your friend make notes and critique afterwards
  – practice it **at least 3 times**
  – time yourself

• **Change your talk** based on what doesn’t work when you practice
GIVING THE TALK
Getting started

• People will **decide in the first 60 seconds** whether or not to pay attention to your talk
• Help them answer the questions:
  – “**Why should I listen to this?**”
  – “**Why does this matter?**”
• A technical talk is **not a mystery novel**
  – Don’t build to a suspenseful conclusion
  – Tell them the punchline as quickly as possible
  – The rest of the talk is delivering on this promise
Engage with the Audience

• Start from the assumption that people find talks **boring**, and strive to overcome that boredom
• You’re allowed to **interact** with the audience
  – they’re living, human beings, and you’re not a recording
• Ask rhetorical **questions** (or real questions)
• Make **eye contact**
• Model **their perspective** and discuss it in the talk
  – explain why you’re talking about your topic
  – anticipate places they’ll get stuck
  – anticipate their intuitions (both correct and incorrect)
Speaking

- Speak up
- Speak slowly
- Be energetic and enthusiastic
- Use emphasis; avoid monotone
- Use natural, conversational language
- If you’re not a native speaker, practice for one and have them point out mispronunciations
- If you say “um” (etc), try replacing with pauses
- Film yourself and find out how you look/sound
Overcoming Nervousness

• Be well **practiced**
• If you draw a blank, looking at your slides will help
• Take a **deep breath** when you need to calm down
• Slow down
• Long **pauses** are OK
• If you must, bring (one page of) notes
• Think about **questions** in advance
  – …but it’s OK not to know the answer (“That’s a great question”)
Rhetoric

• Don’t read your slides
• Repeat points that are important
  – this ensures they don’t get missed
  – this communicates that they are important
• Walk them slowly through figures and graphs
  – explain what the axes mean
  – tell them what conclusion they should draw
• Welcome interruptions
• Know when to stop
How to Give an Effective Presentation

1. **Decide What to Say**
   - Plan your material, taking the audience into account
   - Make a high-level outline

2. **Make Slides**
   - Make a lower-level outline, emphasizing big ideas
   - Clarity is more important than being flashy

3. **Practice!**
   - At least three times, out loud

4. **Give the Talk**
   - Start strong, letting the audience know why they care
   - Be engaging, energetic, and easy to listen to
Sources

My own experience, plus:

• http://www.cs.swarthmore.edu/~newhall/presentation.html
• http://www.cs.ubc.ca/~harrison/PowerPoint/Scientific-Presentation-Planning.pdf
• http://www.matthewjmiller.net/ramblings/presentation-tips/
• http://www.physics.mun.ca/~cdeacon/labs/3900/presentation_tips.pdf