Learning to Speak Your Ideas
Public speaking is critical to your career

I want this to be you!
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The talk is as important as the paper
Minimum elements for a presentation

Problem statement
Your innovation
Key decisions
Reflections on the work
Summary of take away messages
Minimum elements for a presentation

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To bring this all together, you need a story!
How to Tell Your Story

Transitions between main points
Repetition of main ideas
Good aesthetics
Resonate with the audience
Consumable amount of content
How to Tell Your Story

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“the speaker was too hard to follow”

“I wasn’t sure how anything the speaker said related to anything else”
Know Your Audience

You want to be here

Rambling

Audience comprehension

Number of words used to explain the concept
Know Your Audience

- Audience comprehension
- Number of words used to explain the concept

You want to be here

About two minutes per slide

A 20 minute talk should have 10 to 15 slides

Rambling

Number of words used to explain the concept
What to Say and How to Say It

- Presentation styles
  - Read from notes
  - Speak from memory
  - Impromptu speaking
  - Extemporaneous speaking
What to Say and How to Say It

Presentation styles
- Read from notes
- Speak from memory
- Impromptu speaking
- Extemporaneous speaking

Novice speakers tend to memorize or read notes
- hard to memorize a long talk
- the audience notices prolonged reading
- if you lose your place, can lead to awkward pauses or worse
Can you hear me now?

- **Volume**
  - Speak loud enough so the furthest audience member can hear you
  - Should not speak so loudly that the audience is annoyed
  - Maintain volume level throughout your talk
  - Vary to emphasize certain points

- **Tone**
  - How do you actually sound to your audience?
    - Ex: Do you care about your project? Professional? Too excited?
Am I talking too fast?

Stay between these endpoints, but vary the pace for emphasis

Too slow.  
Audience becomes bored

Too fast.  
Audience cannot absorb content.

Novices tend to speak too fast due to anxiety
Project Confidence!

- **Good posture**
  - Face the audience, shoulders back, hands out of pockets, and **smile**

- **Eye Contact**
  - Talk **to** the audience, and with the entire audience
  - Make eye contact for 70-80 percent of your presentation

- **Gestures**
  - Emphasize specific points

- **Movement**
  - Move around to help maintain audience interest
Tips for Aesthetics

- Minimize the amount of content on each slide
  - Set font size to at least 18 points for text
  - Use at most three main bullets
  - List short phrases (start with verb)

- Give dominance to visual content, remove most text and speak it

- Refrain from extensive mathematical equations
How to give a bad presentation …

Robin’s 12+ Commandments
(adapted from David Patterson’s “How to give a bad talk”)
How to Give a Bad Talk

I. Thou shalt not be prepared

- Why waste research time preparing slides?
- There are billions of people in the world. Who cares what 20 people think?

Caveat: Though shalt not be neat

- Ignore spelling and grammar
- Use illegible fonts
How to Give a Bad Talk

II. Thou shalt not waste space
   - No one likes white space
   - Fill in any extra space you may have on a slide with unrelated information

- How to transmit bits
- How to transmit frames
- How to route packets
- How to send packets
- How to group data
- How to format data
- Everything else!
How to Give a Bad Talk

III. Thou shalt not covet brevity

- Read every word on your slide
- Always use complete sentences, never just key words
  - Sentence fragments make you look illiterate

- Caveat: Avoid moving content to “backup slides”
  - You probably won’t get a chance to show them
How to Give a Bad Talk

IV. Thou shalt use annoying animations

- Caveat: Thou shalt blind and nauseate your audience with a laser pointer
How to Give a Bad Talk

V. Thou shalt not write large

- Be humble -- use a small font
- Important people sit in front
- Who cares about the riff-raff?
How to Give a Bad Talk

VI. Thou shalt not use color
  - Flagrant use of color indicates uncareful research
  - It's also unfair to emphasize some words over others

VII. Thou shalt not use a good color scheme
  - Make every word a different color
  - Use colors that can’t be seen on the screen
How to Give a Bad Talk

VIII. Thou shalt not illustrate

- Confucius says “A picture = 10K words,”
- Dijkstra says “Pictures are a crutch for weak minds.”
- If you must use illustrations, don’t explain them.

Caveat: Thou shalt not draw on your slides

- Slides are a work of art, do not deface them!
How to Give a Bad Talk

IX. Thou shalt not make eye contact
   - You should avert eyes to show respect
   - Blocking screen can also add mystery
   - You should read from your computer
   - You should turn your back on the audience

   Caveat: Thou shalt point to your computer
   - Everyone knows what you are pointing to
How to Give a Bad Talk

✗. Thou shalt not skip slides in a long talk
  ▶ You prepared the slides; people came for your whole talk; so just talk faster
  ▶ Skip summary and conclusions if necessary

➤ Caveat: Thou shalt not plan for Q&A
  ▶ Don’t repeat questions
  ▶ Start talking quickly
  ▶ Don’t cut discussion short
  ▶ When in doubt, bluff
  ▶ Universal answer
    □ Dismiss question as irrelevant/naïve
How to Give a Bad Talk

XI. Thou shalt speak neither clearly nor loudly

- Important people sit in front
- Don’t use a microphone
- Let the people in the back read the slides

Caveat: Thou shalt not distract your audience

- Do not distract with motion
- Keep voice level
- Do not ask rhetorical questions
- Do not use humor
How to Give a Bad Talk

XII. Thou shalt not practice

- Why waste research time practicing a talk?
- It could take several hours out of your semester
- How can you appear spontaneous if you practice?
- If you do practice, argue with any suggestions you get and make sure your talk is longer than the time you have to present it
Discussion

- Most talks are imperfect, but NEVER give a talk that is memorably bad
- Practice 2-3 times yourself, then twice in front of a live audience
  - Focus on the beginning and end of a talk
  - Never apologize!
- Q&A is critical
  - Limit responses to 30 seconds (anticipate in advance)
  - May concede the work is imperfect
  - Respond to aggressive questioners with empathy