



# Learning to Speak Your Ideas



# Public speaking is critical to your career

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**I want  
this to  
be you!**

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**I want  
this to  
be you!**

**The talk is as important as the paper**



# Minimum elements for a presentation

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Problem statement

Your innovation

Key decisions

Reflections on the work

Summary of take away messages



# Minimum elements for a presentation

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Problem statement

Your innovation

Key decisions

Reflections on the work

Summary of take away messages

To bring this all  
together, you need a  
story!



# How to Tell Your Story

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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**”

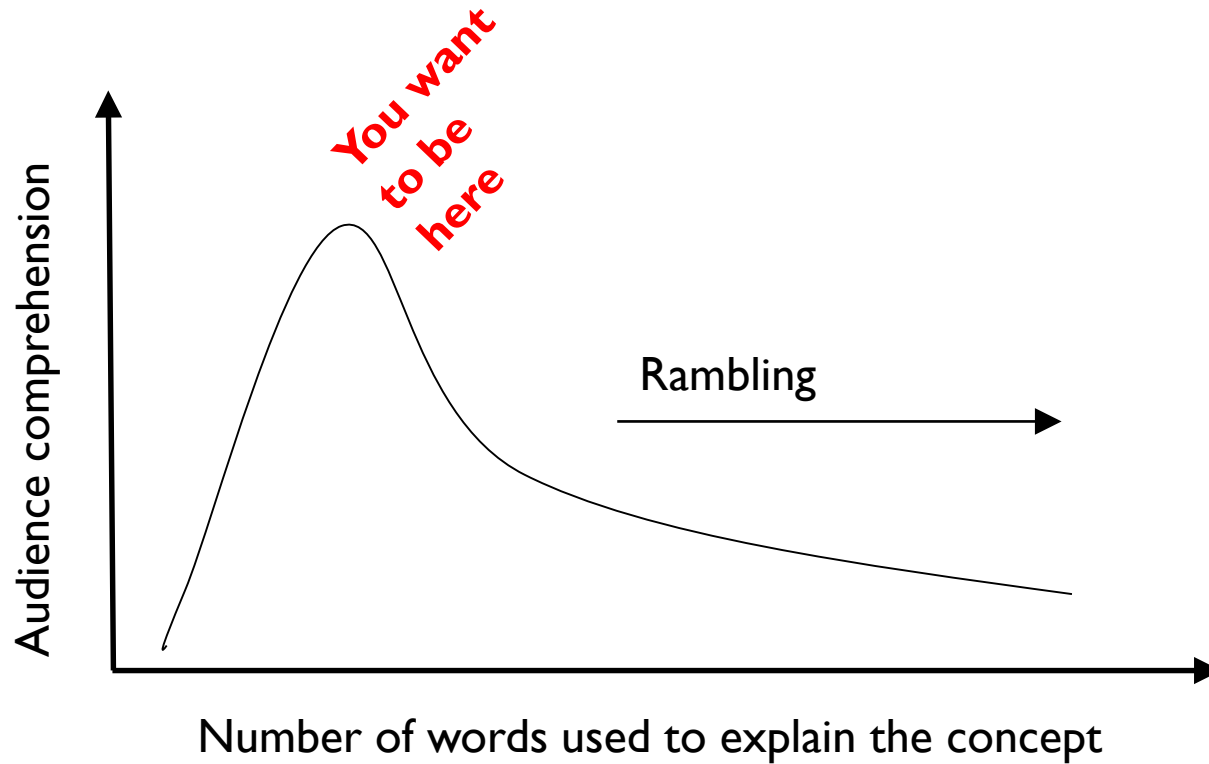
“I wasn’t sure how anything the speaker  
said **related** to anything else”





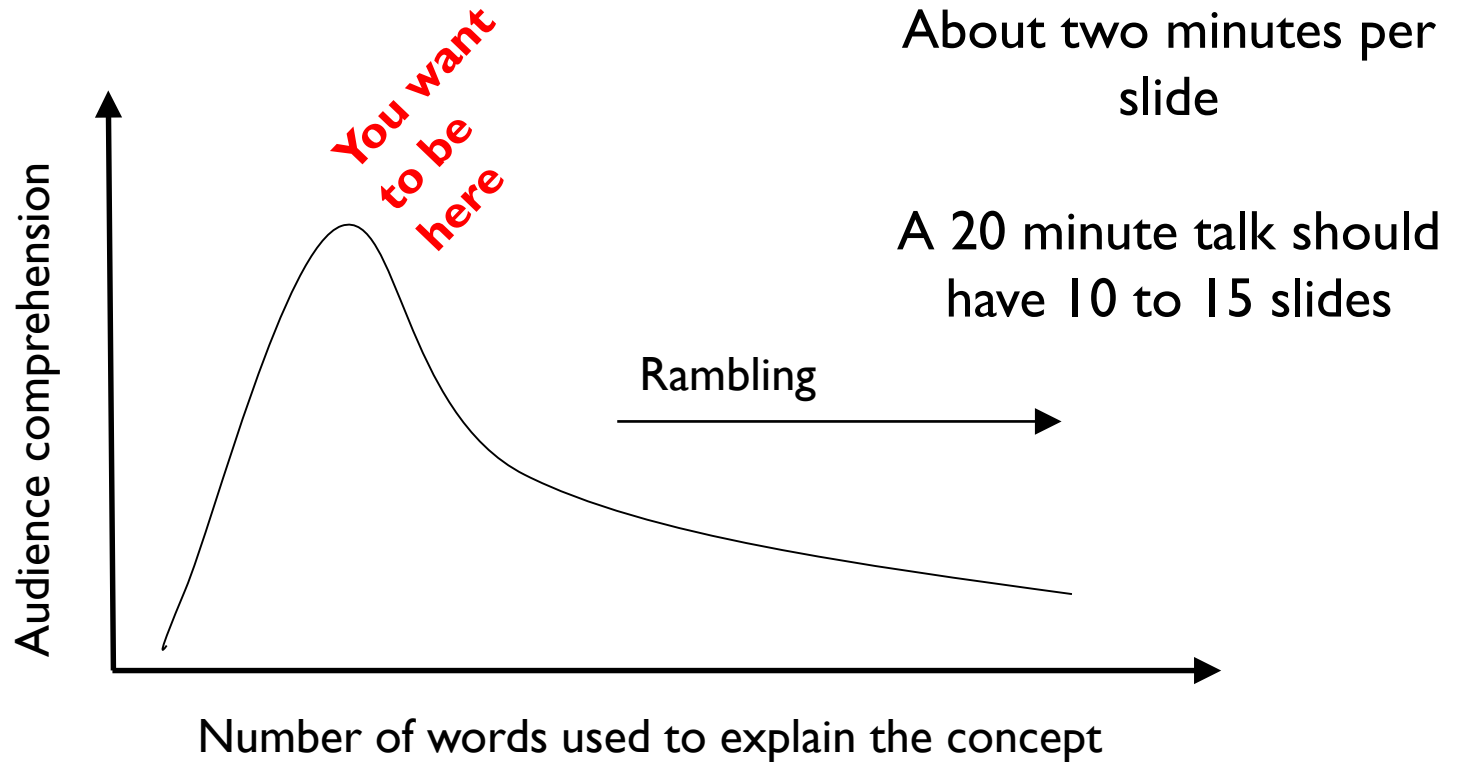
# Know Your Audience

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# What to Say and How to Say It

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



# What to Say and How to Say It

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## ▶ 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?

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## ▶ 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?

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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!

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## ▶ 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

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- ▶ **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

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## I. Thou shalt not be prepared

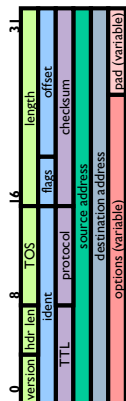
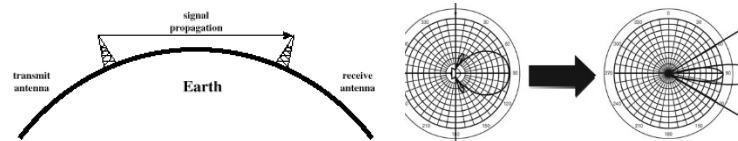
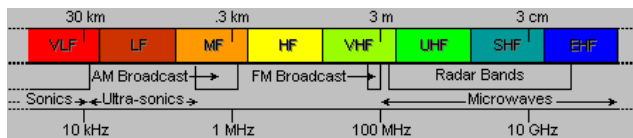
- ▶ Why waste research time preparing slides?
- ▶ There are billions of people in the world. Who cares what 20 people think?
  
- ▶ Caveat: Though shalt not be neat
  - ▶ Ignore spelling and grammar
  - ▶ Use *illegible* fonts



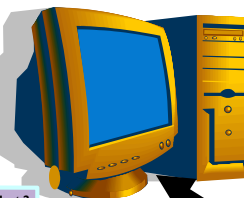
# How to Give a Bad Talk

## II. Thou shalt not waste space

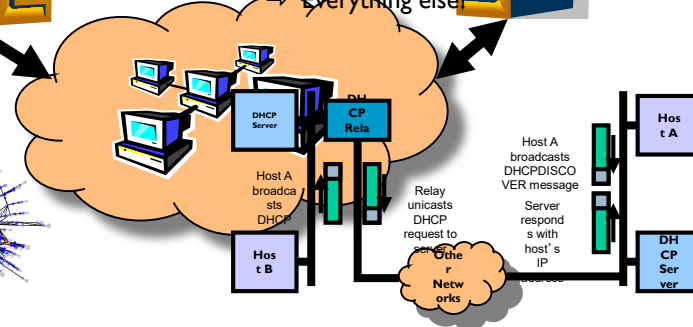
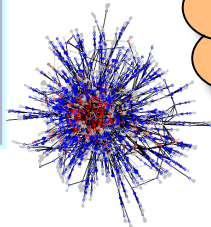
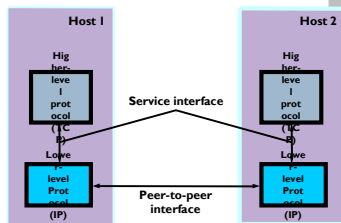
- ▶ No one likes white space
- ▶ Fill in any extra space you may have on a slide with unrelated information



- Physical
- Data Link
- Network
- Transport
- Session
- Presentation
- Application



- 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

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## 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

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## IV. Thou shalt use annoying animations



Powerpoint is cool

Use it to its full potential!



- ▶ Caveat: Thou shalt blind and nauseate your audience with a laser pointer



# How to Give a Bad Talk

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## 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

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## 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**

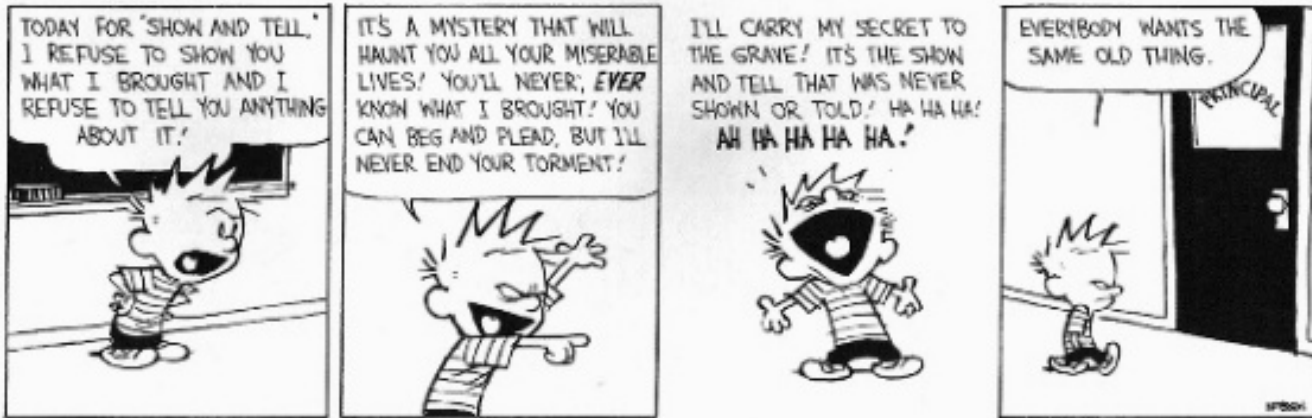


# How to Give a Bad Talk

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## 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

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## 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

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## X. 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

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## 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

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## 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

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- ▶ 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

