

Giving a research presentation

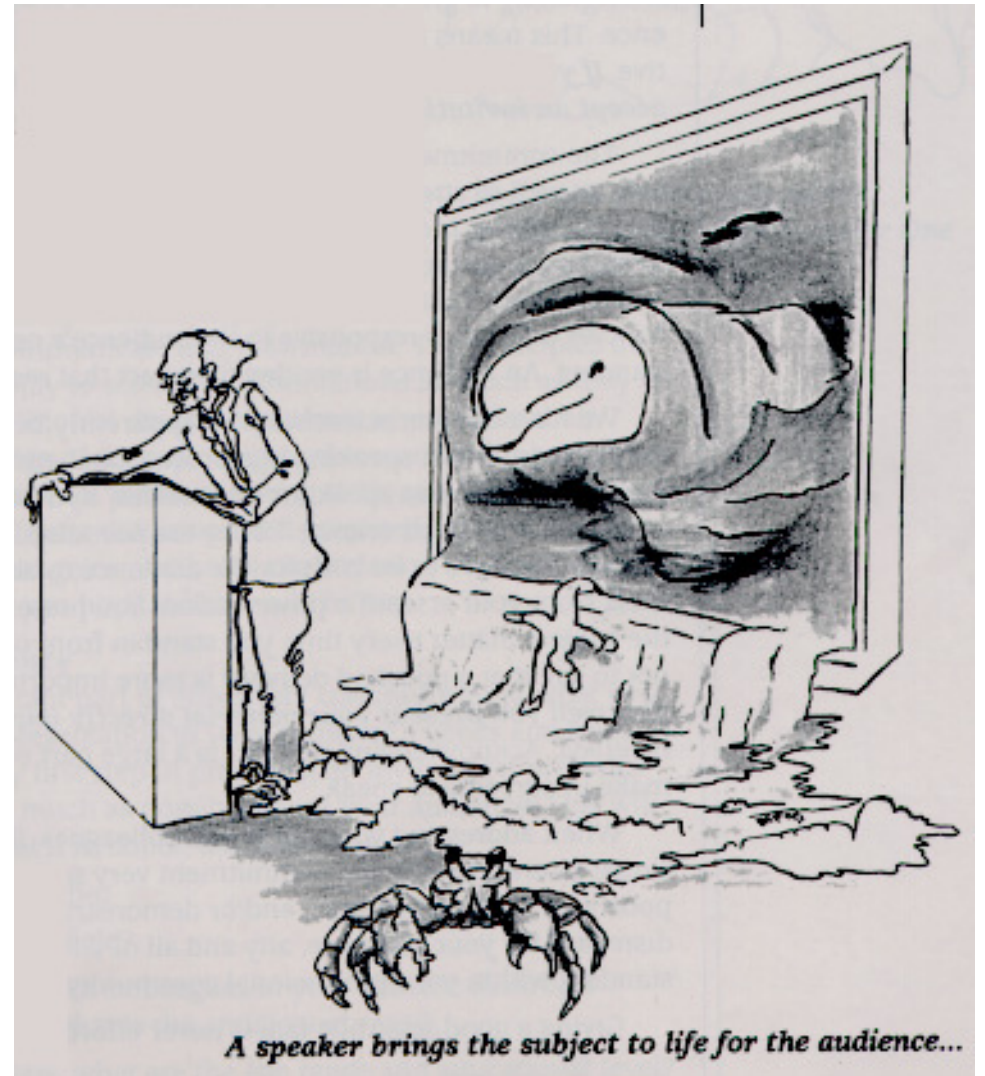
CSE 891, Sec 4, SS09

<http://www.cse.msu.edu/~ldillon/cse891>

Why present research orally?

- ◇ People retain best what they see and hear together
- ◇ Interest others in what you have done
- ◇ Provide intuition for easier understanding
- ◇ Requirement for PhD

http://www.onr.navy.mil/about/speaking_tips



Common misconceptions

- ◇ Good research speaks for itself
- ◇ Your audience is already interested
- ◇ Your talk should cover everything in the paper
- ◇ You should lose most members of your audience by the end of your talk
- ◇ The slides must be sufficiently detailed to be understood on their own

Speaker's Rule-of-thumb

“Tell'em what you are going to tell'em.

Tell'em.

Then tell'em what you told'em.”

http://www.agu.org/sections/atmos/scientific_talk.html

Structure of a presentation

- ◇ **Introduction:** motivate problem (what, why)
- ◇ **Method:** your approach (how) *and caveats*
- ◇ **Results:** only salient or representative detail
- ◇ **Conclusion:** major take-away lessons ($\leq 4!$)

Structure of a presentation

- ◇ Introduction: *Tell'em what you're going to tell'em.*
- ◇ Method: your approach (how) *and caveats*
- ◇ Results: only salient or representative detail
- ◇ Conclusion: major take-away lessons ($\leq 4!$)

Structure of a presentation

◇ Introduction:

*Tell'em what you're
going to tell'em.*

◇ Method:

Tell'em.

◇ Results:

◇ Conclusion: major take-away lessons ($\leq 4!$)

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Tell'em what you told'em.

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◇ Method:

Tell'em.

◇ Results:

◇ Conclusion:

Tell'em what you told'em.

◇ Future
directions:

Tell'em what you'll do next.

Choose what to present carefully!

Deciding what key points to make:

- ◇ Consider your goal
 - Is it to motivate, inform, persuade, teach, ...?
- ◇ Consider background & expectations of your audience
- ◇ Consider how much time you have

Limit details:

- ◇ Only those needed to support your key points
- ◇ Favor intuition over details

Some organizational options

◇ Rhetorical

- Questions and answers

◇ Logical progression

- Give steps in a process
- Time series: beginning to end, earlier to later, ...

◇ Compare and contrast

◇ From problems to solutions

Some organizational options

◇ Simple to complex:

- Gradually build up to complex concepts

◇ Deductive reasoning:

- From general principles to specific applications

◇ Inductive reasoning:

- From specific examples to reach general principles or conclusions

Slides and overheads

◇ *Visual aids*: Reinforce, exemplify, clarify

- Brief and concise (bullet lists, phrases)
- Comprehensible and uniform

◇ Need to be legible, clearly visible

- Sufficiently large font size (min. 18 pt)
- Larger type for headings, smaller for sub-heads, ...
- Uniform, bold typeface (plain fonts: arial, helvetica)
- Left justify, leave ragged on right
- Upper and lower case easier to read than all upper

Slides and overheads

- ◇ Use color for emphasis, distinction, clarity
 - Too many colors, unclear function is distracting
 - Use bright, contrasting colors
- ◇ Slide
 - Title—key point of slide (guide to presentation)
 - 2-3 subheadings/items of information
 - Avoid lengthy, flat lists of sub-points (introduce hierarchical structure)

Slides and overheads

- ◇ Avoid detailed algorithms, mathematical formulas, proofs
 - Abstract into key steps
 - Explain intuition, key insights
 - Animate effects of algorithm
 - Picture relationships between key concepts
 - If needed, give details in a handout
- ◇ Avoid clutter, crowding
- ◇ Limit number of slides (2-3 mins/slide)

Fielding questions

- ◇ Repeat the question before answering
- ◇ Respond simply, directly (stay on topic)
- ◇ If asked about something covered, can go back to slide (but don't belittle questioner)
- ◇ Anticipate likely questions in advance and have a response ready (back up slides to help)

Fielding questions

◇ Don't bluff

- “I don't know; I'll have to look into that.”

◇ Keep your cool, be polite

- Rephrase hostile question positively, answer it and move on
- Do not enter into an argument: Offer to discuss further “off-line”

◇ Be polite and respectful

General tips

- ◇ Practice, practice, practice, practice ...
- ◇ Talk to your audience, *not* the screen
- ◇ Make eye contact
- ◇ Do *not* read your slides
- ◇ Use humor (appropriately)
- ◇ Vary your tone and position
- ◇ Show (bridled) enthusiasm
- ◇ **Smile!!**

Thanks

- ◇ Office of Naval Research, “Tips for preparing scientific presentations,” http://www.onr.navy.mil/about/speaking_tips/
- ◇ Mark Schoeberl and Brian Toon, “Ten secrets to giving a good scientific talk,” http://www.agu.org/sections/atmos/scientific_talk.html
- ◇ “Making effective oral presentations,” <http://web.cba.neu.edu/~ewertheim/skills/oral.htm>