



How to Prepare and Deliver a Talk

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General Preparation

Attire: Two Competing Theories

- Theory 1
 - Dress in a scruffy, slovenly manner
 - Don't waste time ironing your clothes
 - Don't shave
 - Create an informal mood that invites participation
- Theory 2
 - Dress in a flamboyant manner
 - Outrageous necktie
 - Tight, revealing clothing
 - Keep your audience's attention

Personal Preparation

- Stay up very late the night before
 - Good: Stay up working on slides
 - Better: Stay up drinking
- Work on a full stomach
 - Good: Eat a heavy meal before your talk
 - Better: Eat a heavy meal **during** your talk

Rehearsal: Who needs it?

- Don't do any practice talks, not even to your cat
- Goals for your talk:
 - Freshness
 - Have that "I'm seeing the slides for the first time myself" spontaneity
 - Avoid that "overwrought, over-rehearsed" feel

Knowing Your Environment I

- Every venue has a projector compatible with your laptop
- No need to:
 - Test your equipment before the talk
 - Post your slides on your web page
 - Bring your slides on a memory stick
 - Email your slides to your host
- Don't worry if anything goes wrong: Opportunity to invite audience participation to help you fix the problem

Knowing Your Equipment II

- Your laptop battery will last your entire talk
- Don't bring a power adapter
 - They take up space in your luggage
 - There's a good chance somebody in the audience will have a compatible adapter if needed
- Stay logged in to IM & email in case something important comes up during your talk
- Keep your mobile phone on:
 - Calls during the talk make you look important (especially if you take the call)
 - Cool ringtones impress the audience

Knowing Your Equipment III

- The speakers on your laptop will typically be loud enough to fill a conference room or auditorium
- In the rare cases when this is not true, you can count on all environments have working speakers
- Video codecs are now standardized, so your embedded videos will play on anybody's machine

General Organization & Content

The Role of Outlines

- Outlines impose artificial structure on the talk
 - Don't use them yourself
 - Don't impose them on your audience
- Don't do the listener's job for him
 - Outlines, reminders of big picture encourage laziness
 - Don't pander to lazy audience members
 - People who don't pay attention deserve what they get

Flow of the Talk

- Talk should be free-flowing, spontaneous
- Create slides as they come to mind
 - Talk should unfold like a novel...
 - by James Joyce
- Never second guess or rearrange initial layout
- Never repeat anything

Faithfulness to Original Material

- When presenting a paper
 - Follow the order used by the authors exactly
 - Cover every theorem and graph in the paper
 - Label each section of your talk as in the paper
- Avoid editorializing
 - Provide no content beyond the paper
 - Do not assess importance or credibility of major claims – if it weren't important, the paper wouldn't have been accepted
- Main goal: Experience should be as close as possible to reading the paper

Proofs

- Cover all details of all proofs
- No need to:
 - Explain why the proof matters
 - Explain the proof technique
 - State the theorem
- Just jump right in to the equations!

Logical Consistency

- Your talk should flow like a mathematical proof,
- except when it flows like a James Joyce novel,
- and except when you are following the flow of the paper that you are (almost) reading.
- Logical inconsistencies are permitted in talks,
- but you must respond appropriately if confronted
 - Initially respond with anger and denial,
 - Then blame:
 - Original authors
 - Your coauthors (if talking about your own work)
 - Your students (if you are faculty)
 - Your drinking binge the night before (if at a conference)

Background Material

- Safe to assume:
 - Listeners have read all relevant background material
 - Listeners have read all of your previous papers, even if not relevant to the current one
 - Listeners use the same notation as you
- Don't waste time bringing laggards up to speed
- This isn't charity!

Preparing Your Slides



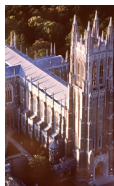
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Decorating Your Slides

- Use icons for all of your affiliations
- Place icons in every slide
- Add disclaimers and acknowledgments



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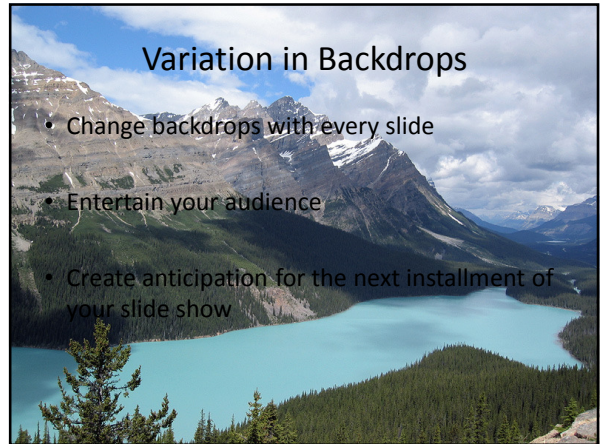
Decorating Your Slides II

- Don't worry if backgrounds encroach on your workspace
- Transparency effects are your friend
- Overlay text on dimmed backgrounds to preserve decorations
- **Never compromise on the decorations**



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Don't **Skimp** on the **Fonts**

- Your computer has scores of fonts
- Use **as MANY as possible!**
- The ransom-note look is **K&W!**
- Use serif or *calligraphic* fonts whenever possible
- Fonts should be changed randomly to avoid creating an unreasonable expectation of meaning **IN** font changes

• Use small fonts because you'll be doing the reading, not the audience, and you're close to the screen

Be **Colorful**

- Your computer has at least 2¹⁶ colors
- Use **as many colors as possible**
- Use **soothing, pastel colors** against light backgrounds (avoids violence), or
- Use **strong, dark colors against dark backgrounds** (exudes manly and confidence)
- Use green and red in crucial ways to torment **dichromats and weak trichromats**

Slide Content

Spelling

- Disable the spell checker
- It usually gets technical words wrong anyway

Slide Grammar

- Slides should always contain complete sentences and it's OK to have run-on sentences, even if you think it's a bad idea at first.
- As we will see later, this is very important, because you will be reading these sentences word for word, and you wouldn't want to speak in incomplete sentences, which would be bad.

Parallel Structure

- When listing items in bullets
 - Avoid parallel structure
 - One should mix imperative and subjunctive
 - Nouns are OK to start with
 - Starting with verbs or gerunds is fine too
 - Use the second person
 - or the first person
 - We'll see later that this is all fine
- These are important!

Using Pronouns and Abbreviations

- Use pronouns and abbreviations mercilessly
- TLAs, abbrevs. let you cram more on a slide
- No need to define acronyms
 - Wastes time
 - Wastes space
 - Confused people probably aren't qualified to understand your material anyway
- NB: Requests to define acronyms should be met with scornful looks

...continued

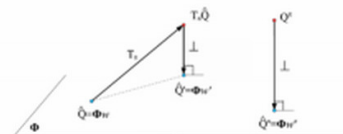
- OK to do this because slides don't need to be self contained
- These people probably weren't paying attention and aren't worth your time

Citations

- Important to include the entire text of a citation at full font size [Michail Lagoudakis and Ronald Parr, Journal of Machine Learning Research (JMLR), Vol. 4, 2003, pp. 1107-1149.]
- Read as much of the citation as possible
- Bonus points for getting the names wrong!
- If possible include amusing and tangential anecdotes about the authors

Inserting Figures I

- Cut and paste figures from Acrobat



- No need for citations

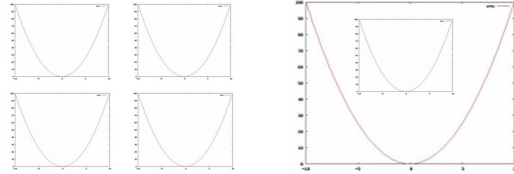
Inserting Figures II

- Create your own figures only as a last resort
- Paste in your figures as bitmaps (preferably with lossy compression, such as jpeg), not as vector graphics



Inserting Figures III

- Place as many figures as possible on a single slide
- Shrink figures or use the figure inset technique



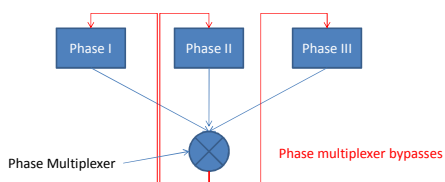
General Principles for Graphs and Charts

- Never label your axes
- Never provide a legend
- Never explain the axes
- Plot using very thin lines
- Use ticks instead of numbers on your axes
(If you must use numbers, use a very small font!)
- Underlying principles:
 - Scale and context of graph must be hidden from audience at all times
 - Audience should perceive (at most) vague trends
 - Ambiguity about direction and scale work to your advantage
(He wouldn't show the graph if results were unfavorable, right?)
- Never use color (that is reserved for text)
- Never interpret the graph or chart

Flowchart Principles

- A flowchart turns a hack into a "system"
- Use concise and generic labels for all flowchart items to save space
- The more connections, the better the chart

Flow Chart Example



Equations

- The equation editor is hard to use, so don't bother
- Cut and paste as low resolution pictures from the pdf of your paper instead

$$Q^n(s, a) = E_{a_t \sim \pi; s_t \sim P} \left(\sum_{t=0}^{\infty} \gamma^t r_t \mid s_0 = s, a_0 = a \right)$$

- Equations impress the audience with your knowledge of math
- Include equations in every slide
- **Important:** Define variables in equations at least 3 slides after they are used – or not all

Animation

- Add animation to every part of every slide
- Animate at a fine level of granularity
- Vary animations as much as possible
- Add sound effects if possible
- It never gets old!

Delivering Your Talk

Tone

- Slides should be delivered in a consistent, low, monotone, mumble
- Do not raise your voice for emphasis
- Do not pause between sentences or between slides
- Goal: Your voice should be an uninterrupted drone, like a leaf blower humming in the background
- Reason:
 - Pauses viewed as opportunities to ask questions
 - Questions must be avoided at all costs

Addressing Your Audience

- Good: Stare directly at your laptop screen when reading your slides
- Better: Stare directly at the projector screen when reading your slides
- Best: Stare at index cards; read from a script

Where to Stand

- When reading the projection screen, stand directly in front of it with your back to the audience
- When reading your laptop screen or script, it is OK to sit, or even put your feet up

Coverage

- Anything on the slide must be read
 - Read all text verbatim
 - Read all equations, symbol for symbol (but don't explain the symbols)
 - Talk about every picture
- Use all parts of the slide – white space gives the impression you have nothing to say
- Don't worry about making the fonts small to fit everything in
- Use complete sentences and verbose, grandiloquent language to take extra space
- Avoid abbreviations, except when you have an opportunity to use an unexplained acronym
- Fill any unused space with trite clip art
- Use animated clip art whenever possible



Don't forget to use the sides of the slides

Laser Pointer Usage

- Keep the laser pointer on at all times, even when you turn to face the audience
- Keep the pointer moving at all times when you are facing the screen (which should be often!)
- Bounce from word to word as you read
 - Amusing sing-along-like experience for audience
 - Just like karaoke with math!

Using a Presentation Controller

- Purchase a new one just before the talk
- Install the drivers *during* the talk
- Learn how to use the controller during the talk
- Point the controller at the projector screen when changing slides, as if changing channels on your TV

Questions: Understanding the Threat

- Questions are like war
 - Should be avoided at all costs
 - When unavoidable, should be fought fight to win
- The multifaceted threat
 - Every second spent listening to a question is a second in which you are not reading your slides
 - Questions challenge your knowledge and authority

Avoiding Questions

- Do not pause
- Do not look at the audience
- Do not offer to answer questions
- Advanced technique: The Question Killing Question (keep your back to the audience when asking)
 - “Everybody gets this, right?”
 - “If anybody is having trouble, just speak up!”
 - “Anybody who doesn’t understand, please raise your hand.”
- Advantages of the advanced technique
 - Gives the impression of an interest in answering questions
 - Prevents questions by making potential askers feel stupid

Facing the Question Hydra

- Start answering before hearing entire question
 - Gives more time for you to talk
 - Shows you’re smart by anticipating the question
- Techniques to establish your dominant role
 - Don’t answer directly, but imply that the question is the product of a profound ignorance
 - Offer to take the discussion “off-line” because it would take too much time to educate the questioner
 - Assert: “I have a slide on that” even if you don’t (If you do have a such a slide, be sure to skip it)

The Demo

- If possible, finish your talk with a demo
- Compile the code while the audience waits
- Run on a previously untested input
 - Shows confidence
 - Alleviates concern about a “canned” demo
- Fix a bug during the talk
- Goal: Scrolling diagnostics during run
- Output: A real number
 - Graphics are too flashy and look “cheap”
 - Integers are suspicious (What are the chances of getting an integer?)
- Read the real number out to at least 6 decimal places, but give no further explanation of its meaning

Timing

- Put **everything** you want to say in your talk
- Don't wear a watch or use a timer
- Rely upon your host to tell you when time is up
- Promise that you have one slide left, ***no matter how many slides you really have left***
- Key principles of time management:
 - The audience wants to hear you **read** every slide
 - The audience is willing to stay late
 - You can talk faster and faster as you run over time

Concluding Your Talk

- Conclusions serve no functional role
 - Why repeat something you just said?
 - If audience didn't care enough to pay attention to the details, why would they care now?
- Don't tell them you're done – just stop talking