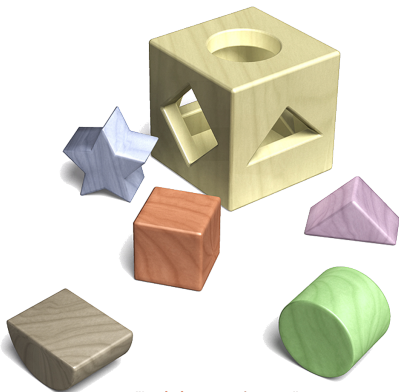


## A Talk about How to Give a Talk – Part I

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*"Logic is everywhere ..."*



## Overview

**Part I** How to conceive and prepare a talk

**Part II** How to present the talk



## Types of Talks

### Lecturing Talks

**Focus** Some contents to explain

**Occasion:** LECTURES

Tutorials

Seminar Talk

Status Talk on Your Work

### Advertising Talks

**Focus** Your work and you

**Occasion:** CONFERENCE TALK

Seminar Talk

Status Talk on Your Work

Thesis Defense

I will focus more on Advertising Talks than on Lecturing Talks,  
because they are more difficult:

You don't have much time!

Of course, many problems when giving talks are quite general ones:

how to speak, how to handle questions, . . .



## Main Message

# TELL A STORY

Think of your talk as a **Science Story**  
tailored to your **Audience** and your **Goals**.

Only present information that is  
immediately **relevant and necessary** to your story  
in view of your audience and your goals



## Goals (of a conference talk)

### ▶ TO DO

- ▷ To give your audience an intuitive feeling for your idea (your story)
- ▷ To make them eager to read your paper

### ▶ NOT TO DO

- ▷ To tell them all you know about your topic
- ▷ To present all the technical details

### ▶ Think of your talk as the story of your research

**NOT** primarily as a presentation of facts

### ▶ Keep in mind your audience

If someone remembers only one thing from your talk,  
what would I like it to be ?



## Audience

### The audience you would like

- ▶ Have read all your earlier papers
- ▶ Thoroughly understand all the relevant theory of . . .
- ▶ Are all eager to hear about the latest developments in your work
- ▶ Are fresh and alert

### The audience you get

- ▶ Have never heard of you (nor of your work)
- ▶ Have heard of . . . , but . . .
- ▶ Have just listened to an awesome talk and are still left there
- ▶ Have just had lunch and are ready for a doze

Your mission is to **WAKE THEM UP** and make them glad they did



## Contents of a **SHORT** Research Talk

### 1. **Motivation** (20% of first 10-15 minutes)

- ▷ What is the problem ?
- ▷ Why is it an interesting problem ?

**You have 2 minutes to engage your audience before they start to doze**

### 2. **Your key idea** (80% of first 10-15 minutes)

- ▷ What did I do to solve this problem ?
- ▷ Which are your achievements ?

### 3. **There is no real 3 if the entire talk is 10-15 minutes** **Just very short conclusions and future work**



## Formal Structure of a Research Talk

- ▶ **Title**
- ▶ **Introduction : ~ Motivation**
- ▶ **'Methods' – what you did : ~ Your Key Idea**
- ▶ **Results and Discussion: ~ Maybe still Part of Your Key Idea**
- ▶ **Conclusions**





## Introduction — Present Research Problem

After you've introduced yourself ....

... introduce your research problem

- ▶ 2–3 slides maximum
- ▶ Briefly outline background/justification, area where problem is located
- ▶ Identify the research problem
- ▶ Whenever possible: short example
- ▶ Identify study objectives (no more than 3!)
- ▶ State your hypothesis



## Your Key Idea

### Recall:

If the audience remembers only one thing from your talk, what should it be ?

- ▶ You must identify a key idea
- ▶ Be specific  
Don't leave your audience to figure it out for themselves.
- ▶ Be absolutely specific  
Say "If you remember nothing else, remember this."
- ▶ Organize your talk around your key idea
- ▶ Ruthlessly prune material that is irrelevant to this goal



## Pruning – Saying Enough Without Saying Too Much

- ▶ **The tension is this:**  
you need to say enough to convey the essential content of your idea,  
but you must not overwhelm your audience with too much material.
- ▶ **The best way out:**
  - ▷ **Treat some aspects in more detail than others.**  
It may be painful not to talk about the other parts,  
but it is better  
than only giving a superficial treatment to everything,  
or over-running your time.
- ▶ **There may be people in your audience who don't know the area at all,  
some overall introduction/motivation is usually essential.**
  - ▷ **Avoid spending 5-10 minutes on rambling introductory remarks.**
  - ▷ **Better: Jump straight in with an example  
which demonstrates the problem you are addressing.**
  - ▷ **Remember: If you bore your audience in the first few minutes  
you may never get them back.**



## Tell it How it is

- ▶ **Avoid the temptation to conceal problems you know about in your work.**  
Not only is it dishonest: it is also ineffective.  
A bright audience will find you out.
- ▶ **Furthermore, if you are open about the difficulties, you may find that someone makes a suggestion which turns out to be just what you need.**  
**Get your audience to help you do your research!**



## Examples are Your Main Weapon

- ▶ To motivate the work
- ▶ To convey the basic intuition
- ▶ To illustrate The Key Idea
- ▶ To show extreme cases
- ▶ To highlight shortcomings

**When time is short, omit the general case, not the example.**



## Omit Technical Details

- ▶ Present specific aspects only
- ▶ Refer to the paper for the details
- ▶ By all means have backup slides to use in response to questions

Avoid the **Two Most Common Mistakes** in presenting results

- ▶ Don't engage in data dumping!
- ▶ Don't include every result



## How to Write Slides – The Title Slide

- ▶ **Required: Title, Authors, Institution(s)**
- ▶ **Title:** Clear, accurate reflection of content  
Inaccurate title = “false advertising”
- ▶ **Optional: Picture** (reflecting aspect of research)  
Picture can make title slide more interesting  
But it might take too much time to explain it



## How to Write Slides – General Considerations

Make your talk look professional by being consistent in your slide and figure design.

- ▶ Use a the right system for your purpose  
Use a **LaTeX** based system if you have to print formulas
- ▶ Choose **right size of font**  
Depends on lecture hall, video taping, . . .
- ▶ Choose right type of font – prefer **sans serif font**
- ▶ **Choose same font for same type of symbol** in text and figures/tables
- ▶ Choose a dark or light background  
based on which will display your data most effectively.  
**Avoid light text on light backgrounds, or dark text on dark backgrounds.**
- ▶ Avoid fancy slide templates. It's just distracting.
- ▶ **Don't just copy your research paper onto slides**

Run a final spell check





## How to Write Slides – Simplify Your Slides

Once you've created slides to represent a layout of your talk, go through and refine those slides.

- ▶ **Never put more on a slide than you can explain**
- ▶ **Minimize written details in slides.**  
Of course, without losing contents
- ▶ **Avoid sentences.**  
Instead, write a short phrase that summarizes the main point.  
You don't want your audience reading instead of listening to you!
  - ▷ **Never let formatting be done by the system**
  - ▷ **No hyphenation!**
- ▶ **Remove unnecessary details from the figures and tables.**

### Add Titles to Your Slides

- ▶ **Use a new slide to introduce each major idea.**  
Don't squash many ideas into one slide.



## Practice and Test the Presentation

- ▶ **Practice your talk** (Maybe: in sections first, then entire talk)
  - ▷ Don't read your talk. Speak free
  - ▷ BUT: DON'T memorize your talk!
- ▶ **Stay within Allotted Time**

Prepare talk that is a few minutes shorter than the time slot  
But: you might speak faster than when just training
- ▶ **Mimic the real event:**
  - ▷ Practice by saying the words out loud!
  - ▷ If possible, practice talk in room/lecture hall where you'll actually give it
  - ▷ Ask colleagues to attend and to give you feedback
  - ▷ Practice answering questions with your mock audience
- ▶ Allow 2 days after each practice talk to implement changes.
- ▶ Videotape your talk



## Conclusion

**TELL A STORY**

**FOCUS ON YOUR KEY IDEA**

