

Guidelines on Orally Presenting Scientific Papers

Javier Larrosa

UPC Barcelona Tech

.

Oral Presentations are Important in General

Communication

Communication skills are essential in most aspects of social life.

Oral Presentations

- **Presenting** ideas to an **audience** is extremely valuable
 - Have your claims accepted
 - Fundamental to build up your **reputation**

Presenting Research Papers

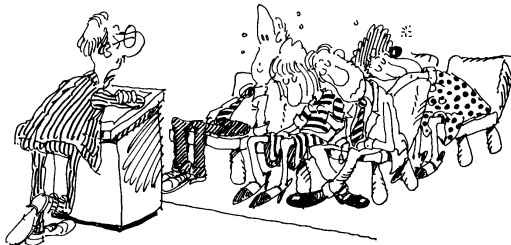
- Doing a **good oral presentation of your research** is the final step of doing **good research**

Take it Seriously: Do not waste all your work!!

Bad talks

Fact

Even the best story can be spoiled in the telling



There are some many ways to make an awful presentation: Tone, structure, clarity,...

There are many *communication experts* offering **hints** for being an effective speaker:

- Start with a joke (empathy)
- Keep eyes contact with audience (keep attention)
- Make people remember you (reputation)

A consequence of this are homogeneous talks

Communication Gurus



Respect the Audience

My advise:

Respect the audience



You must make these people feel that their time with you was well invested

Scientific Talks

A scientific talk does not follow the same codes as a scientific paper

- **Scientific papers: rigid** template because reading is flexible
- **Scientific talks: flexible** because listening is rigid
 - You must entertain to help the audience keep their attention.

Don'ts

- You are **not covering** your paper orally (papers and talks are build for very different contexts)
- You are **not lecturing** (lecturing requires a very high compromise from the audience)

Dos

- You are **presenting the idea** that is in your paper
- You are **advertising** your paper
- You are **convincing** people to go read your paper

The Right Questions: What, Why and How

- what is the **central idea** that I want to communicate?
 - Talk about something your audience is **interested** in
 - Tell upfront **why they should care**
 - Keep it **simple**, but do not oversimplify
 - Be **entertaining**, but remember that this is not the ultimate goal
 - Be **credible**

It MUST cover

- What is the problem being addressed
- Why it is important
- What is your approach to the problem
- Why it is effective
- Why it is original

If at the end of the presentation all these questions have not been **clearly** answered, you cannot be satisfied

The perfect talk

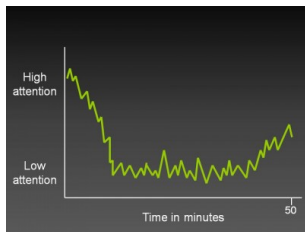
- There is not such a thing as a good talk for all situations
- For any situation there is a good talk

Some relevant variables:

- Audience
 - Background
 - Size
- Duration
 - 5' → **sell** the idea (marketing)
 - 10'-25' → **tell** the idea
 - 30'-60' → **teach** the idea (lecture)
- Speaker verbal skills
 - Use visual tools to minimize your limitations

Keep the Audience Attention

In a talk you should **also entertain** because **keeping** audience attention is more difficult than **grabbing** audience attention.



Keeping Attention

Psychologists say that we new generations are less likely to keep attention for a long time

- Our attention breaks every 40 seconds (G.Mark, UCI)
- Movies → Series → Tik-tok

Keep the Audience Attention

Wi-fi is your worst enemy

There are many alternatives to paying attention



Keeping Attention: Tell the Roadmap

- Stimulate the audience's **curiosity**
 - Pose questions
- Expose a **gap** in their knowledge - then fill the gap
- Take the audience on a **journey**
 - With happy end spoiler: tell the departing point and the destination



Keeping Attention: Concreteness

Casualties

When somebody is lost during a talk, there is no recovery method

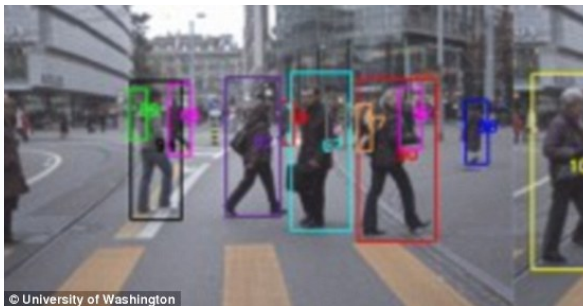
- The **abstract is hard** to grasp, examples are easy to grasp
- Start with an example
- Use examples throughout
- Speak of concrete things, not of vague generalities



- **Provide evidence** that your idea works
 - talk without ambiguities (do not overvalue your work, but do not undervalue it either)
 - show results (statistics)
 - describe the algorithm,...
- **Provide enough detail** to make them go read your paper, but not so much that you bore them or lose them

Keeping Attention: Emotions

- People are **emotional** beings: make them feel something



Keeping Attention: Emotions

- **Catch their interest:** can they use your work? do they believe you?
 - BAD START: "I am going to present a method to reduce memory swaps"
 - GOOD START: "Don't you hate when your laptop starts swapping memory? I am going to show you how can you avoid it 20% of the time"
- People love **stories**
 - In CP2015 I realized that I only remember talks from CP95 that had a story behind
 - Where appropriate, make the whole talk into a story
- Use **anecdotes** in your talk
 - e.g. Jimmy Lee CP95's talk

A wrapping up example from the Space Race

Nasa's Management Version

Our mission is to become the international leader in the space industry through maximum team-centered innovation and strategically targeted aerospace initiatives

A wrapping up example from the Space Race

JFK's version

...to put a **man** on the **moon** and return him **safely** by the end of the decade.



Some more hints: Respect your audience

- Rehearse, rehearse and rehearse
- Start Well
 - Good first impression
 - Nerves will calm down
- Stop within the time limit
- Check the technology

Some more hints about Slides

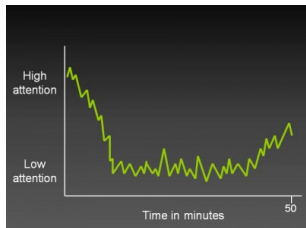
- Slides are not always good help
 - They bias our way of presenting
 - See *Lessons from The Gettysburg Address* at Dodgson's webpage



- More rehearsal is needed

Some more hints about Slides

When appropriate use **visuals** (images, videos), rather than bullet lists



- Maximum attention is only attained the first minutes of a talk
- Then it drops dramatically
- Only at the very end it is slightly recovered
- It is not difficult to have peaks of attention
- The challenge is to keep it.

Assignment

- You have to present the paper that you have selected **PRETENDING THAT YOU ARE ONE OF THE AUTHORS**, as you would presented into a conference.
- The presentation must last 5 to 7 minutes. In the recording you can just show the slides and talk on top of them, or you can do something more sophisticated. But this is up to you.
- The slides **MUST** be produced with latex. I recommend that you use the "beamer" class.

Remember slide number 10!!!!