

How to Give a Good Talk

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Focus of This Talk

- ❑ Broadly applicable advices for any kind of talks
- ❑ Some specifics for
 - Scientific talks
 - Talk at a conference
 - Invited talk
- ❑ Variations not addressed here for
 - Courses
 - Non-scientific talks

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Credit

- ❑ How to give a bad talk?
 - Credit: David A. Patterson, Rolf Riedi, John Ousterhout, Tom Anderson
 - Browse google for an instance of the presentation
- ❑ <http://www.nanog.org/talkpointers.html>
- ❑ How to give a good research talk
 - Simon Peyton Jones, Microsoft Research, Cambridge

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Credit

- ❑ Colleagues
 - Much better to be ashamed in front of a colleague than in front of 300 peers
- ❑ The wonderful and awful presentations I attended

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Can You Trust Me?

- ❑ Make your own opinion
 - Attend presentations
 - Mimic presentations you understand/like
 - Big plus if it is not your field
- ❑ Never ever consider simplicity and clarity as a proof of weakness
- ❑ Never forget that you can violate the rules if you have a **very** good reason to do so

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Outline

- ❑ Why should you bother doing talks?
- ❑ How to structure your talk?
- ❑ How to make your slides?
- ❑ How to give your talk?
- ❑ Great talks examples

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Presentations are a fundamental part of research excellence

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Research and Marketing

- ❑ The best researchers in the world learned how to sell they work
 - To the community
 - Visibility, impact
 - To students
 - Attract graduate students
 - To commissions
 - Funding, promotion
 - To the public
 - Increase attraction of your field, Fame

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Goals of a Presentation

- ❑ Give the audience the intuition of your idea
- ❑ Make the audience eager
 - To read your paper
 - To ask you questions
 - To discuss with you
- ❑ Build relationship
- ❑ Create a reputation
- ❑ Get feedback

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Goals of a Presentation

- ❑ Show you can make great presentations
 - Big plus in a career
 - Conversely, a poor presentation can kill an application to a new position

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Adapt to the Audience

- ❑ **The entire** audience must understand your talk
 - It is better to explain notions a part of the audience already knows than to lose another part of the audience during the talk
- ❑ Do not overestimate the knowledge of the audience in your field

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Do Not Present Too Much

- ❑ Common pitfall
 - "I did a lot and I will present every single bit of my work. They will be impressed"
 - That shows you are unable to deliver a message
- ❑ Do not hesitate to cut your results
- ❑ It is better to present 10% of your work that the audience understand than 90% that nobody understand

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Do Not Present Too Much

- ❑ The audience will remember at most one single message
 - Don't **sell** more, but **sell** it well
- ❑ Yes, it is marketing
 - Useless to do a great research if nobody knows it

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Give a Structure to Your Talk

- ❑ Give a background
 - Adapt to the audience
 - Also adapt the technical granularity of your presentation
- ❑ **Motivate your work**
 - Why the subject is important and interesting?
- ❑ **Focus of your work**
 - What is this presentation/work about in a single sentence
 - What is the problem?

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Give a Structure to Your Talk

- ❑ Give methodology and tools
- ❑ Give results
 - **Clearly show your contributions**
- ❑ Conclude with a summary of contributions
 - Impact of this work
 - Future work rarely makes sense unless you are really planning future work

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Give a Structure to Your Talk

- ❑ Give an outline
 - You can give it first before or after (better) the background
 - Repeat the outline before each new part
 - Use color to show where you are
- ❑ Make clear the structure of your talk to the audience
 - No suspense

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Give a Structure to Your Talk

- ❑ No need to go deep into related work (unless it is a survey)
 - Your contributions must be the core
 - But, be prepared to discuss related work

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Make Summaries

- ❑ For each important result
- ❑ At the end of each part of your talk

Clearly show the take home messages

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Anticipate Q&A

- ❑ Prepare backup slides
 - Very impressive when it works
 - You can put technical details or results you did not have time to address in them
- ❑ Be prepared to questions
 - Rehearsal with colleagues
 - Be prepared to hard questions

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Use Slide Numbers

- ❑ How do you know which slide it is over 30?
 - "The slide whose title is 'Use Slide Numbers'"
 - "The slide after 'Presentation Guidelines'"
 - "I don't remember, go back, again, again, again, again, stop... yes this one!"
- ❑ Used to ask questions and to practice
- ❑ At least 20 pt
 - Even at the back someone may ask a question

Use non-serif fonts (times)

- ❑ Serif fonts are hard to read
 - Line width is not uniform
 - Thin lines may not render well with all projector types
 - Hard to read from the back
- ❑ Use
 - Comics: looks modern
 - Arial: looks formal, but might be boring

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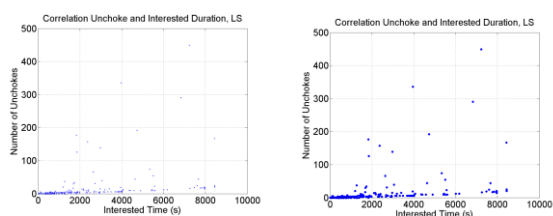
Use Large Fonts

- ❑ Font must be larger than 20pt (here it is 32pt)
- ❑ Font must be larger than 20pt (here it is 24pt)
- ❑ Font must be larger than 20pt (here it is 20pt)
- ❑ Font must be larger than 20pt (here it is 18pt)
- ❑ Font must be larger than 20pt (here it is 16pt)
- ❑ Font must be larger than 20pt (here it is 14pt)
- ❑ Where do you stop to read it from the back?
 - Consider poor projectors, poor screens, poor eyes

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Show Readable Figures

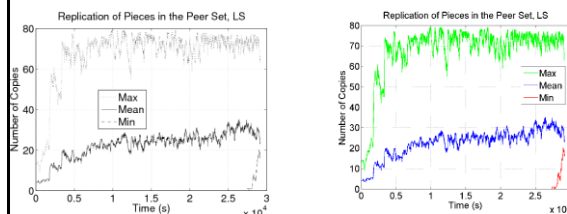
- ❑ Use large symbols



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Show Readable Figures

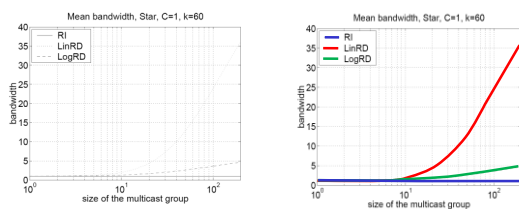
- ❑ Use thick solid lines and colors



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Show Readable Figures

- ❑ Do not use the camera ready figures
 - Often unreadable on slides



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Be Concise

- ❑ Do not write complete sentences as they make your message obfuscated in long lines of text
- ❑ Never forget that nobody can read your slides and listen to you at the same time unless you are reading what is in your slides. But, you must not read your slides, this is boring
- ❑ Omit technical details, there is no chance to explain everything in a single presentation. Instead, you should make the audience eager to read your work
- ❑ Do not believe complexity will impress your audience, it will simply make you look unable to express your idea

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Be Concise

- ❑ Write small sentences
- ❑ Do not compete with your slides
 - You give the message, the slides support it
- ❑ Do not dig into details
 - Just deliver a message
 - Give a preview of your work/paper
- ❑ Be simple in your explanations

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Use Illustrations

- ❑ Make your point clear and simple
- ❑ Give a mental image people are more likely to remember
- ❑ Always use a figure instead of a table

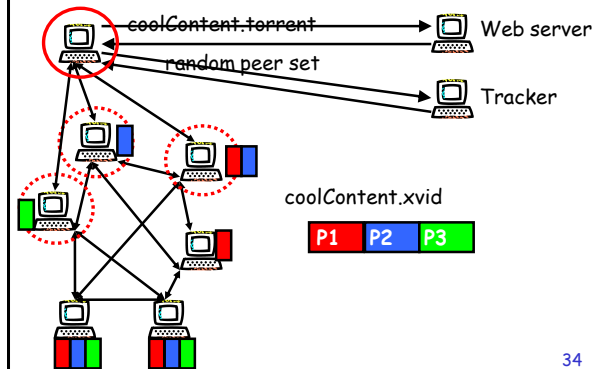
32

Use Illustrations

- ❑ Prior to distribution
 - Content split multiple pieces
 - Metainfo file created by the content provider
- ❑ To join a torrent
 - Peer P retrieves metainfo file from a well-known website
 - P contacts the tracker
 - The tracker responds back with a peer set of randomly selected peers
 - P contacts peers in this set and start requesting different pieces of the content

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Use Illustrations



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Use Colors

- ❑ No more than **three** colors on a slide
 - Here I have four
- ❑ Use easy to distinguish colors like dark
 - Blue, Red, and Green
- ❑ Use colors to emphasize an important word
 - May be used to remind you to develop keypoints

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Use Colors

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 - Here I have three
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Use Colors

Never use light colors or low contrast
They may not render well No

Never use light colors or low contrast
They may not render well No

Never use light colors or low contrast
They may not render well Yes

Never use light colors or low contrast
They may not render well Yes

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Do Not Over Animate

It is disturbing

Annoying

Useless

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Do Not Over Illustrate

Do not use

- Irrelevant illustrations



- Weak metaphors



- Animated images



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Be neat

Do YOU like

- slides with spell **check errors**

- Inconsistent:

- Capitalisation

- Bullet.

- Structure,

- **font**;

- Ugly slides

- poor use of symbol !!!

➤ Poor layout

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Be Neat

Do you like

- Slides with spell check errors

- Inconsistent

- Capitalization

- Bullets

- Structure

- Font

- Ugly slides

- Poor use of symbols

- Poor layout

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No Punctuation Mark.

No punctuation mark:

- At the end of sentences:

- Period (.) ,

- Colon (:),

- Semi-colon (;),

- Comma (,).

- Apart from:

- Question marks (?),

- Exclamation marks (!).

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No Punctuation Mark

- ❑ No punctuation mark
 - At the end of sentences
 - Period (.)
 - Colon (:)
 - Semi-colon (;)
 - Comma (,)
 - Apart from
 - Question marks (?)
 - Exclamation marks (!)

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Use Meaningful Titles

- ❑ The title should summarize the slide content
- ❑ Do not use a same title with an increasing number
 - Introduction 1/5
 - Introduction 2/5
 - Etc.
- ❑ Poor variant "cont."

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Outline

- ❑ Why should you bother doing talks?
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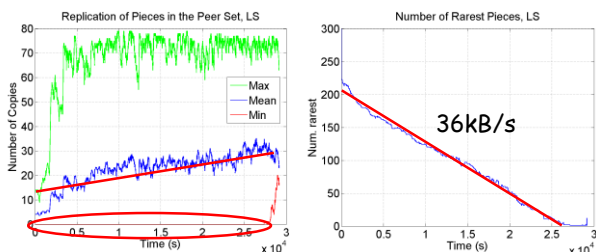
45

Never Use Laser Pointer

- ❑ Always disturbing
 - Aren't you shaking?
- ❑ Show you are lazy
 - Use neat animations
 - Works in any case
 - Safe side
 - Use colors, shapes
 - Use your hand if you can touch the screen in last resort (not always possible)

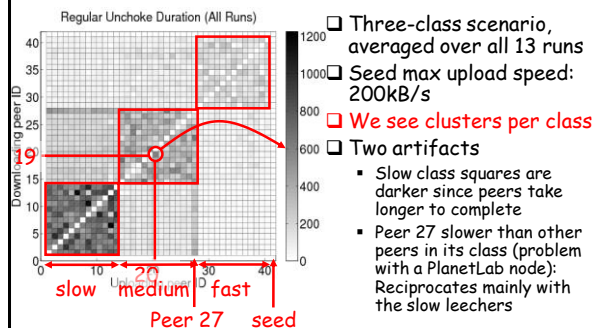
46

Never Use Laser Pointer



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Never Use Laser Pointer



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Explain All Slides

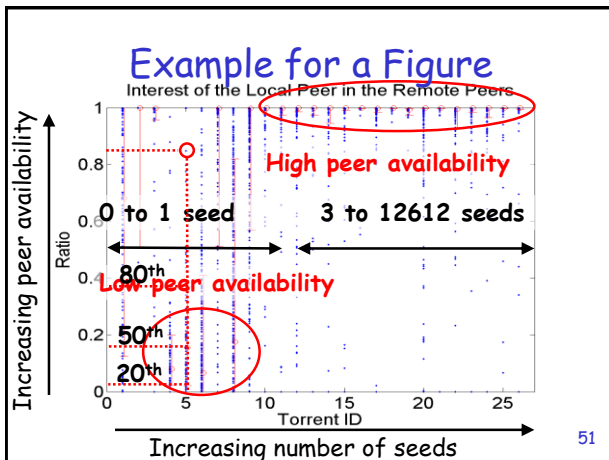
- ❑ Never present a slide you do not explain in details
 - Always drop a slide if you present it for less than 30 seconds
 - Spend time on complex figures or drop them
 - Spend time on equations or drop them
 - Talk on transition slides (e.g., outline reminders) or drop them
 - Use transition to summarize the previous part and introduce the next one

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Minimum Explanation

- ❑ For **each** figure you **must**
 - Give the x-axis
 - Give the y-axis
 - Give the legend
 - Explain all symbols
- ❑ For **each** equation you **must**
 - Explain all variables and parameters
- ❑ If you cannot
 - Drop the figure or the equation, otherwise, it will be useless

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Example for an Equation

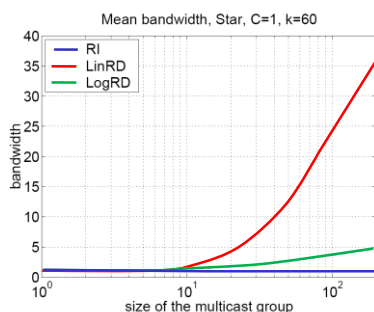
$$\bar{B}_{RI} = \frac{1}{k+m} \sum_{i=1}^{k+m} \frac{C}{k+1} = \frac{C}{k+1}$$

$$\bar{B}_{LinRD} = \frac{1}{k+m} \left(\sum_{i=1}^k \frac{C}{m+k} + \sum_{i=1}^m \frac{mC}{m+k} \right) = \frac{k+m^2}{(k+m)^2} C$$

$$\bar{B}_{LogRD} = \frac{1}{k+m} \left(\sum_{i=1}^k \frac{C}{k+(1+\ln m)} + \sum_{i=1}^m \frac{C(1+\ln m)}{k+(1+\ln m)} \right) = \frac{k+m(1+\ln m)}{(k+m)(k+1+\ln m)} C$$

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But, Prefer the Figure to the Equation



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Be Redundant

- ❑ Repeat several times
 - I'm going to explain...
 - My explanation is...
 - I just explained...
- ❑ Never too much redundancy

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Never Go Back

- ❑ It is bad habit to go back to a previous slide
 - If you forgot something, just tell it
 - If you need a previously shown image, add it again
- ❑ Navigating within slides will lose your audience

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Never Exceed Your Allocated Time

- ❑ This is a lack of respect for the audience and the next speakers
 - Not admissible, not professional
- ❑ Should never happen if you are well prepared

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Never Exceed Your Allocated Time

- ❑ In case you feel you will exceed
 - Drop slides
 - No problem to drop a full part
 - Never drop summary of contributions
 - Never stop in the middle of somewhere

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One Slide Every Two Minutes

- ❑ Usually everybody agrees
- ❑ Now count
 - 10 minutes means 5 slides
 - 20 minutes means 10 slides
 - How many slides do you have for a 20 minutes talk?

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One Slide Every Two Minutes

- ❑ You can violate this rule if
 - You have time to explain in details all slides
 - You will not exceed your allocated time
 - You will not speak much faster
- ❑ Hard to spend on average per slide
 - less than 1 minute (really short)
 - more than 3 minutes (start to be boring)

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Q&A

- ❑ Reformulate questions
 - Make sure you understood them
 - Make sure everybody hear them
- ❑ **Be concise in your answer**
- ❑ Do not start a discussion
 - "I propose to continue this interesting discussion during the break. Another question?"

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Q&A

❑ Never bluff or lie

- "This is a good point and I don't have an answer now. We will definitely look at it."
- "I don't know this article, but it looks similar to what we did. Can you send me the pointer?"
 - Never forget to send back your answer by email

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Q&A

❑ Questions might be

- Aggressive
 - Stupid (no such questions, only show you made a poor presentation)
 - Hard to answer
 - Showing you are wrong
- ### ❑ In any case **never**
- Lie, aggress, or complain

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Use Your Body

❑ Use eye contact

- Do not stare (no more than 10 seconds)
- Do not avert or switch fast

❑ Use your hands

- To support visually what you say

❑ You can walk, but

- Do not stand in front of your slides
- Do not walk along a line
- Walk on a triangle and stop at each vertex

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Use Your Voice

❑ Repeat several times major messages

❑ Make a short pause before each important message

- Pauses are even more effective than raising voice

❑ Vary your voice level

❑ **Never read your slides or notes**

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Show Enthusiasm

❑ If you don't show enthusiasm presenting your own work, do you really believe that the audience will be enthusiastic

- Listening to you
- Reading your work
- Inviting you
- Discussing with you

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Use a Second Screen

❑ Do not look at your slides on the primary screen

- You must not show your back to the audience
- Hard to keep the eye contact this way

❑ Use instead a second screen (in clone or extended view)

- Place it appropriately
 - Stay in front of the audience when you look at the slides
- Hard to see you are looking at the slides

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Practice

- ❑ **Best speakers** are the ones who **practice the most**
 - No improvisation or spontaneity
 - To look spontaneous you even need to practice more
- ❑ Stand up and speak with loud voice to practice
 - Practice at least one using a projector
- ❑ Practice with colleagues (once well trained)
- ❑ The shorter the talk the more you have to practice
- ❑ Be prepared to hard/aggressive questions

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Practice

- ❑ To prepare a 20 minutes talk
 - Three days for a first version of the slides
 - Around 10 rehearsal in front of my desk
 - Around 5 "in situation" rehearsal
 - Final version of the slides
 - Stand up
 - Speak loud
 - May use a real projector
 - Stringent time constraint
 - In front of colleagues

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Dress Well

- ❑ Always dress better than the audience
 - Show that you respect the audience
 - If you don't care of your presentation or of the audience, how will you dress?
 - As every day!
- ❑ But, do not be overdressed
 - Ask the dressing convention of your community/audience

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Avoid Bad Surprises

- ❑ Make backup copies of your slides on two different supports
 - Don't put everything in a same luggage
- ❑ Make copies in several versions
 - PowerPoint 2007, PowerPoint 2000, pdf (lose your animations), etc.
- ❑ Make your slides available on-line
- ❑ Check that all copies are the last version of your presentation

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Avoid Bad Surprises

- ❑ Arrive early in the conference room
 - Don't hesitate to move chairs or tables to make you more comfortable
- ❑ Test your presentation
 - Go through all slides to see if everything is ok
- ❑ Test the remote controller
 - Batteries

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Avoid Bad Surprises

- ❑ If you use your laptop
 - Restart it half an hour before your presentation
 - Stop all applications
 - Avoid popups
 - Stop wifi
 - Avoid system update popups or reboot
 - Use a power cable
 - Deactivate sleep mode, screen saver

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Some Facts on the Audience

- They want to be elsewhere
 - Early in the morning
 - In their bed
 - Around noon
 - Eating
 - Early in the afternoon
 - Sleeping near a swimming pool
 - Late in the afternoon
 - Dinner or social event
 - In the middle
 - Waiting for the coffee break

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Some Facts on the Audience

- They don't know you
- They don't know your work
- They don't know your field
- They have no reason to like your work
- They have no reason to listen to you

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Some Facts on the Audience

- They have already ingested boring presentations
- They are laptop addict
 - They are reading their emails, browsing the web, reading online newspapers, skyping, etc.

You have to wake them up and catch their attention

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Wonderful Examples

- General talks (not scientific)
 - Randy Pausch Last Lecture (in english)
 - How to communicate passion?
 - Try http://www.youtube.com/watch?v=j5_Maicx5o
 - Or search google for "Randy Pausch Last Lecture"

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Wonderful Examples

- General talks (not scientific)
 - Michel Serres aux 40 ans de l'INRIA (in french)
 - How to keep the audience focused during one hour without any slides and sitting at a chair?
 - Try <http://www.inria.fr/40ans/forum/video.fr.php>
 - On the same site you will find horrible presentations

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Wonderful Examples

- Watch talks on <http://www.ted.com/>
 - Elizabeth Gilbert on nurturing creativity
 - http://www.ted.com/talks/elizabeth_gilbert_on_genius.html

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Thank you!

- Put here title and contact
- Everything that facilitates access to your work
 - Email, URL, etc.

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