

Some Elements for a Scientific Presentation

Scientific Methodology Workshop

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SOME ELEMENTS FOR A SCIENTIFIC PRESENTATION

1 MOTIVATION : Communication of Scientific Results

2 WORST SLIDES

- Visibility
- Readability
- Understanding
- Pleasure
- Conclusion

3 CONTENT

- Audience
- Goal
- Problematic
- Introduction/Conclusion
- Questions and Interactions
- Presentation is not a text

4 SMALL DETAILS that Make the Difference

5 SYNTHESIS

WHY THIS LECTURE ?

- ▶ Communication is important.
 - everywhere,
 - in any job,
 - for a teacher,
 - for a researcher,
 - for an industrial ...
- ▶ No improvisation, need of preparation, training etc ...
- ▶ You will be evaluated on a presentation at the end of the year !

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"You'll never have a second chance to make a first impression"

DID YOU ALREADY GIVE A TALK ?

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If yes, how many ?

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It is easy to do BAD presentations ...

GOALS OF THIS LECTURE

- ▶ Realize : it is easy to do a bad talk
- ▶ Shape is important
- ▶ Structure and content also
- ▶ Be ready for your next talk
- ▶ Conception is crucial
- ▶ **It takes time**

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BOTCHING OF A TALK IN 20 EXAMPLES ...

INSPIRED FROM DIEUDONNE LECLERCQ'S TALK.

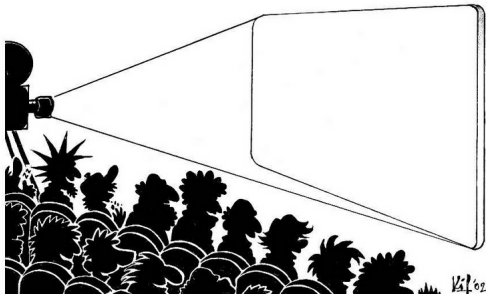
- ▶ Visibility
- ▶ Readability
- ▶ Understanding
- ▶ Pleasure

VISIBILITY

- 1 Area of visibility
- 2 Hiding a part of the screen
- 3 Size of the slides



VISIBILITY



- 1 Area of visibility
- 2 Hiding a part of the screen
- 6 Size of the slides

1. AREA OF VISIBILITY

First

- ▶ Paint the wall in extra color not white
- ▶ Small screen

25% of blinds

1. AREA OF VISIBILITY

First

- ▶ Paint the wall in extra color not white
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25% of blinds

Second

Use only half of the screen

50% of blinds

1. AREA OF VISIBILITY

First

- ▶ Paint the wall in extra color not white
- ▶ Small screen

25% of blinds

Second

Use only half of the screen

50% of blinds

Third

Use useless decoration on your slides

75% of blinds

2. HIDING PART OF THE SCREEN

With

- ▶ The beamer
- ▶ Yourself



2. HIDING PART OF THE SCREEN

With

- ▶ The beamer
- ▶ Yourself



3. SIZE OF THE SLIDES

`\tiny` Example tiny

`\scriptsize` Example scriptsize

`\footnotesize` Example footnotesize

`\small` Example small

`\normalsize` Example normalsize

`\large` Example large

`\Large` Example Large

`\LARGE` Example LARGE

`\huge` Example huge

`\Huge` Example Huge

READABILITY

- 1 Fonts
- 2 Background color
- 3 Animation

2. BACKGROUND COLOR

- ▶ ... Put strange background color
- ▶ basics color red green, , black, blue ou yellow.
- ▶ We can generate more with
`\colorlet{mauve}{blue !70 !red}`

3. ANIMATION

It is horrible ;-)
Brain will focus on the animation ...

UNDERSTANDING

- 1 Talk during reading ;-)
- 2 Screen is no a text
- 3 Crazy Laser
- 4 Finger pointer
- 5 Underlining everything
- 6 All information at once
- 7 Sound and movement
- 8 Vague information

1. TALKING DURING READING

No one would have believed in the last years of the nineteenth century that this world was being watched keenly and closely by intelligences greater than man's and yet as mortal as his own; that as men busied themselves about their various concerns they were scrutinized and studied, perhaps almost as narrowly as a man with a microscope might scrutinize the transient creatures that swarm and multiply in a drop of water. With infinite complacency men went to and fro over this globe about their little affairs, serene in their assurance of their empire over matter. It is possible that the infusoria under the microscope do the same. No one gave a thought to the older worlds of space as sources of human danger, or thought of them only to dismiss the idea of life upon them as impossible or improbable. It is curious to recall some of the mental habits of those departed days. At most terrestrial men fancied there might be other men upon Mars, perhaps inferior to themselves and ready to welcome a missionary enterprise.

2. SCREEN IS NOT A TEXT

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3. CRAZY LASER

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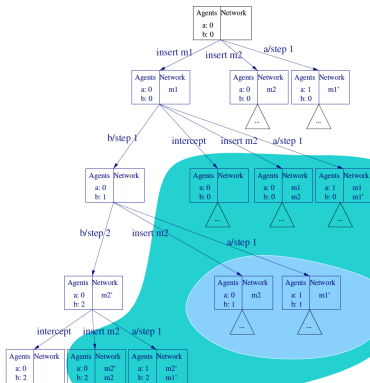
4. POINT WITH YOUR FINGER

No one would have believed in the last years of the nineteenth century that this world was being watched keenly and closely by intelligences greater than man's and yet as mortal as his own; that as men busied themselves about their various concerns they were scrutinized and studied, perhaps almost as narrowly as a man with a microscope might scrutinize the transient creatures that swarm and multiply in a drop of water. With infinite complacency men went to and fro over this globe about their little affairs, serene in their assurance of their empire over matter. It is possible that the infusoria under the microscope do the same. No one gave a thought to the older worlds of space as sources of human danger, or thought of them only to dismiss the idea of life upon them as impossible or improbable. It is curious to recall some of the mental habits of those departed days. At most terrestrial men fancied there might be other men upon Mars, perhaps inferior to themselves and ready to welcome a missionary enterprise.

5. BOLD

No one would have believed in the last years of the nineteenth century that this world was being watched keenly and **closely** by intelligences greater than man's and yet as mortal as his own; that as men busied themselves **about their various concerns** they were scrutinized and studied, perhaps almost as narrowly as a man with a **microscope** might scrutinize the transient creatures that swarm and multiply in a drop of water. With **infinite complacency** men went to and fro over this globe about their little affairs, serene in their **assurance of their empire** over matter. It is **possible** that the infusoria under the microscope do the same. No one gave a thought to the older worlds of space as sources of human danger, or **thought of them only** to dismiss the idea of life upon them as impossible or improbable. It is curious to recall some of the mental habits of those **departed days**. At most terrestrial men fancied there might be other men upon Mars, perhaps inferior to themselves and ready to **welcome** a missionary enterprise.

6. ALL INFORMATION AT ONCE



7. SOUNDS AND MOVES

Without no link with the talk, disturb the attention

8. USELESS OR VAGUE INFO

You can see the third James bond on the picture



PLEASURE

- 1 Discovery
- 2 Speak to the screen
- 3 Force to take note
- 4 Time over passing
- 5 No way to contact you

1. DISCOVERY

Find a famous name

*CL * O * A **A*

Too much or not enough kill the pleasure of discovery.

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CLEOPATRA

2. SCREEN SPEAKING



3. FORCE TO TAKE NOTE

Give paper version of your slides AND leave place for notes ;-)

4. TIME OVER PASSING



5. DO NOT GIVE ANY WAY OF CONTACT YOU

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MORALE

One Good Slide is :

- ▶ SIMPLE (one idea, no sentence, few words 7+-2)
- ▶ MINIMAL (“Nothing can be deleted”)
- ▶ COHERENT (shape and content)
- ▶ ATTRACTIVE (colors and graphics)
- ▶ INDISPENSABLE (“UNDELETABLE”)

Why do it?

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Why do it ?

It will help the understanding of your message

FEW ADVISES :

- ▶ One idea per slide
- ▶ Rule of 6 by 6
- ▶ Telegraphic style
- ▶ Metaphors, images talk more than a long text
- ▶ Time : > 2 minutes per slides
- ▶ Uniform presentation : background, color, font, size
- ▶ Arial, no Time.

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WHO ARE YOU ?

You are your first audience.

- ▶ Introduce yourself
- ▶ Do a talk you like
- ▶ Explain honestly your feelings...

A TALK FOR WHO ?

Identify your audience :

- ▶ Language (**English**/French)
- ▶ Junior / Senior
- ▶ Prior knowledge ?
- ▶ Who should understand your talk ?
- ▶ Level of detail

RECALLS OR NOT ?

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- ▶ Defining a clear common vocabulary
- ▶ Frustrating someone who does not know
- ▶ Slowly starting your talk
- ▶ Introducing basics
- ▶ Catching audience's attention

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SO DO IT.

A TALK FOR WHAT ?

Always identify a goal

According to

- ▶ Audience (number, age, background etc ...)
- ▶ Time
- ▶ Kind of presentation
- ▶ Your interests
- ▶ Your abilities
- ▶ Your material

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YOU SHOULD LIKE YOUR GOAL ...
in order to do a good talk.

A TALK FOR WHAT ?

Scientific Dissemination

Your talk is the reflect (image) of

- ▶ yourself,
- ▶ your lab
- ▶ your results
- ▶ your abilities to solve open problems
- ▶ your capability to talk, present, explain etc ...

A TALK FOR WHAT ?

Lecture

Your aim is to teach something to somebody :

- ▶ Verify what they already know (recalls anyway)
- ▶ Explicit what they should learn (focus)
- ▶ Identify step by step where you are in the objectives
- ▶ Recall at the end main key ideas

A TALK FOR WHAT ?

Audition for a Job

You aim is to convince the committee :

- ▶ Check the time you have
- ▶ Ask which kind of presentation they want to see
- ▶ Present yourself in any case
- ▶ Be honest, clear and yourself

DEFINE A STORY...

Find a clear and nice way to bring your audience to your goal

- ▶ Define a problematic to catch the attention
- ▶ Identify the problem and after a solution
- ▶ Try not to lose the audience, keep the contact
- ▶ Recall often where you are in the story
- ▶ Repetitions are welcomed

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DO NOT FORGET :

The audience do not know where you are going ...

INTRODUCTION

1 First Slide

- Title of the talk, authors, affiliation (HAT) ...
- Presentation of you, your co-author, your institution, lab.
- Thanks the organizer to be there (be polite ;-))

2 Motivation

3 State of the art

4 Problematic

5 Outline

INTRODUCTION

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INTRO = YOU + STORY + GOALS

CONCLUSION

Summary :

- ▶ Recall problematic
- ▶ your solution
- ▶ technique used
- ▶ main result, concept, idea to bring home

Next :

- ▶ unsolved questions
- ▶ open problems
- ▶ possible extensions
- ▶ Questions ...

LINK BETWEEN PARTS

- ▶ Keep the audience in your story (image, humor, break ...)
- ▶ Show clearly your progression
- ▶ Try to introduce your next slide, parts, chapter

BEFORE AND DURING THE TALK

- ▶ Offer the possibility to the audience to ask questions
- ▶ Ask questions to the audience
- ▶ Answer to the questions

AFTER THE TALK

- ▶ Offer the possibility to the audience to ask questions
- ▶ Answer to the questions being :
 - Reformulating the question for the audience and to be sure to answer the right question
 - Honest
 - Clear and simple

“TALK IS NOT READING”

You + Audience + Goal = INTERACTIONS

- ▶ DO NOT read your slides
- ▶ DO use your slide
- ▶ DO NOT be passive
- ▶ DO see and answer questions
- ▶ DO NOT speak too fast
- ▶ DO speak loud enough
- ▶

Use the fact that you are there in front of your audience...

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Of course, it will be detailed in the next part ;-)

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CHECK

Organize your talk in advance

- ▶ Microphone
- ▶ Laser
- ▶ Compatibility PC
- ▶ Screen size
- ▶ Remote
- ▶ Watch
- ▶ Paperboard
- ▶ Room disposition

YOU

Your

- ▶ Position
- ▶ Wearing
- ▶ Voice
- ▶ Attitude

TOO FAST, TOO SLOW HOW TO KNOW ?

- ▶ Preparation
- ▶ Estimation
- ▶ Ask audience
- ▶ Let them think
- ▶ Ask the audience

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IMPORTANT THINGS TO BRING HOME

- ▶ Slide show is not a REPORT, LECTURE NOTE ...
- ▶ Be on time (departure/arrival ;-)
- ▶ Training and preparation are crucial (it takes time)
- ▶ Define a STORY, a GOAL according to you AUDIENCE
- ▶ Do everything you can to give your best.

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ENJOY YOUR TALK

Questions !

I thank you for your attention

Questions!

Talk : I'll be pleased to answer your questions

CHINESE PROVERB

“I heard, I forget

I see, I remember

I do, I understand”

Confucius

I thank you for your attention

