

Scientific communication

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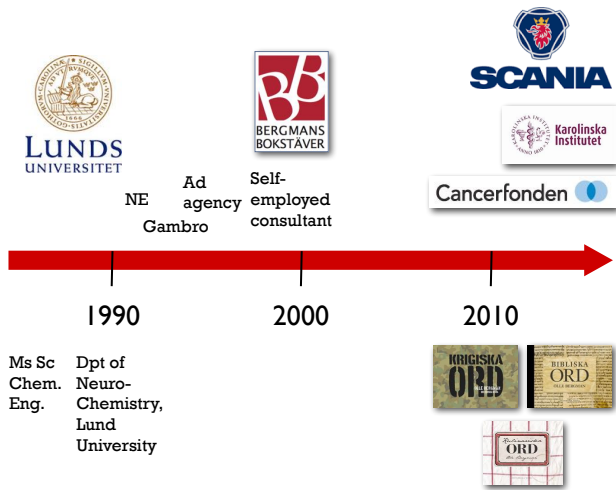


Sigismund
Zygmunt III Waza
1566–1632

Kung av Sverige
1592–99

*Król Polski i wielki
książę litewski*
1587–1632





Basic principles of communication
§ why rhetoric is still relevant in AD 2015

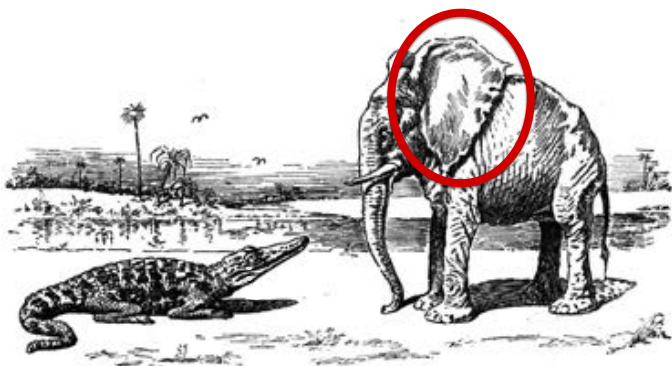
1
Define your task.

Microsoft®
 WHERE DO YOU WANT TO GO TODAY?™



- ▶ Transfer information?
- ▶ Create understanding?
- ▶ Convince opponent?
- ▶ Sell an idea or a product?
- ▶ Influence decisions?
- ▶ CHANGE THE WORLD!!

Analyze your target group.



What ...

- ▶ ... do they know?
- ▶ ... do they want?
- ▶ ... do they need?
- ▶ ... motivates them?

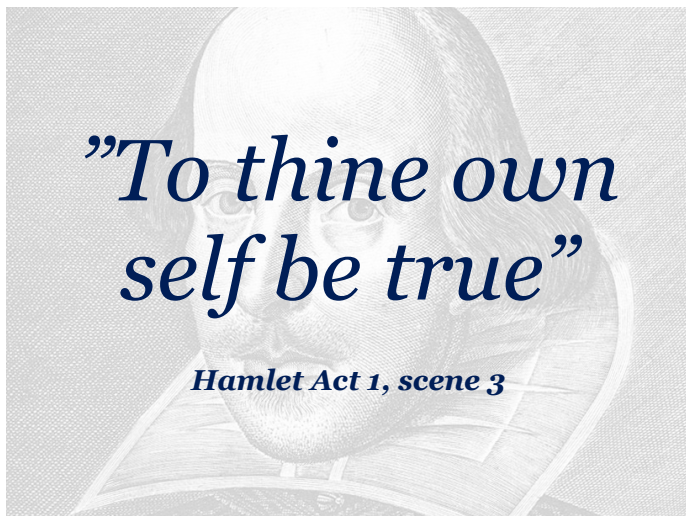


Australopithecus afarensis

HOMEOSTASIS
SECURITY
HIERARCHY
REPRODUCTION

What ...

- ▶ ... do they think they know?
- ▶ ... do they want to be?
- ▶ ... makes them feel insecure?
- ▶ ... boosts their ego?



SWOT



Understand
the limitations
at hand.

4



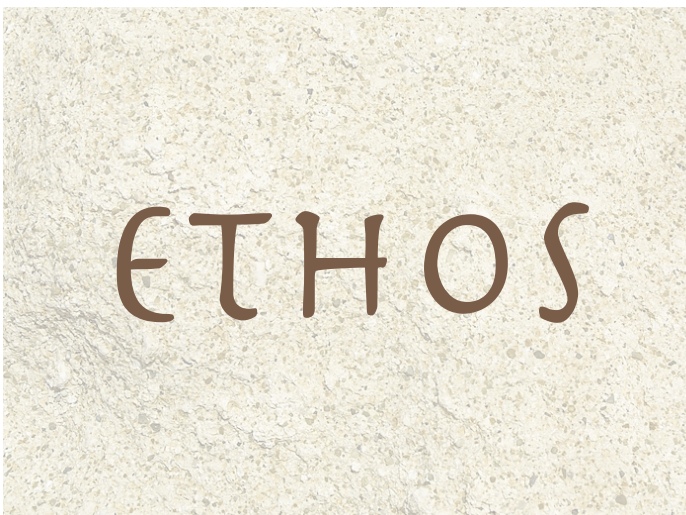
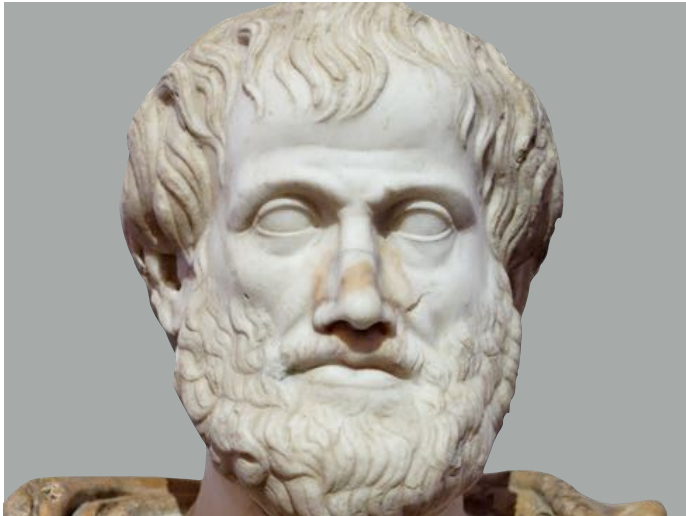
Seek inspiration
in all types of
communication.

5



- ▶ *Exordium*
- ▶ *Narratio*
- ▶ *Propositio*
- ▶ *Probatio*
- ▶ *Refutation*
- ▶ *Peroratio*
- ▶ *Introduction*
- ▶ *Background*
- ▶ *Thesis*
- ▶ *Proof*
- ▶ *Refutation*
- ▶ *Conclusion*

- ▶ Title
- ▶ (Abstract)
- ▶ Introduction
- ▶ Materials & Methods
- ▶ Results
- ▶ Conclusions
- ▶ References
- ▶ Acknowledgements



LOGOS

3



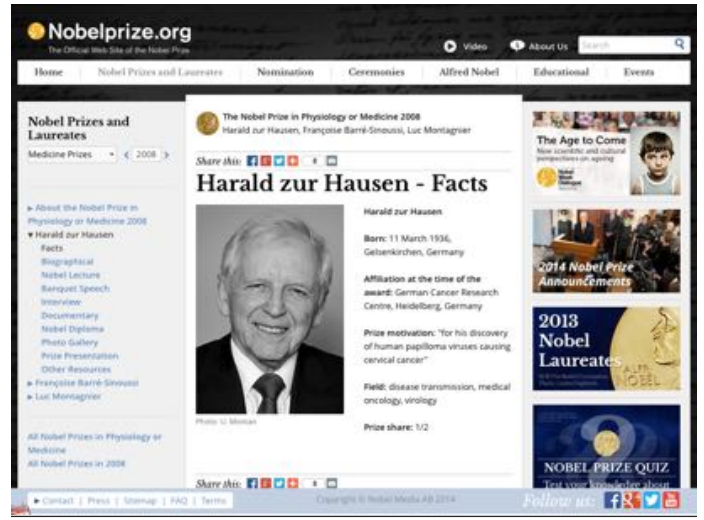
Attention

Interest

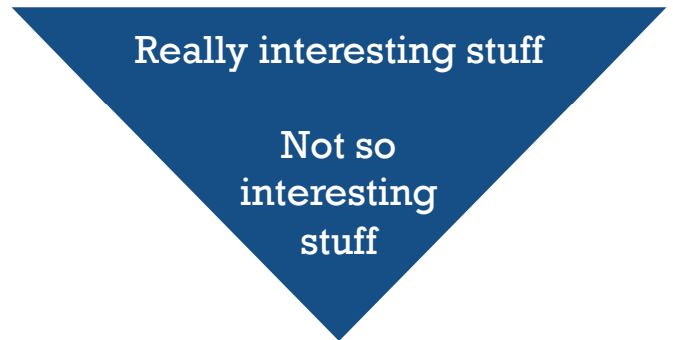
Desire

Action





The inverted pyramid



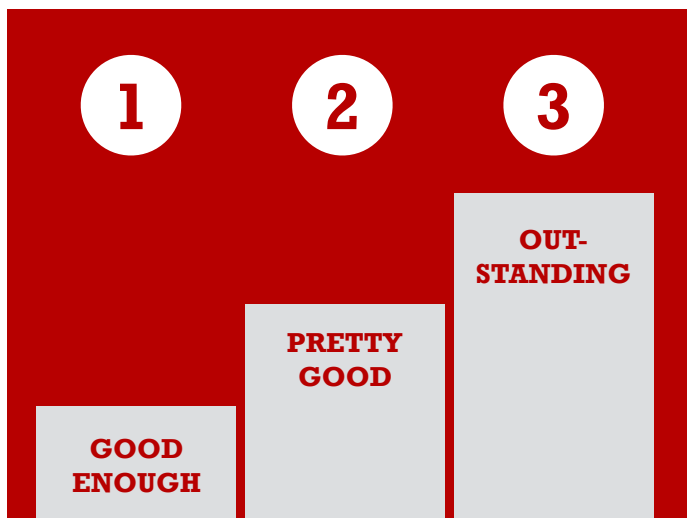
- ▶ What? ▶ Who?
- ▶ When? ▶ Why?
- ▶ Where? ▶ How?



1. Define your task.
2. Analyze your target group.
3. Know yourself
4. Understand the limitations at hand.
5. Seek inspiration in all types of communication.

The noble art of public speaking

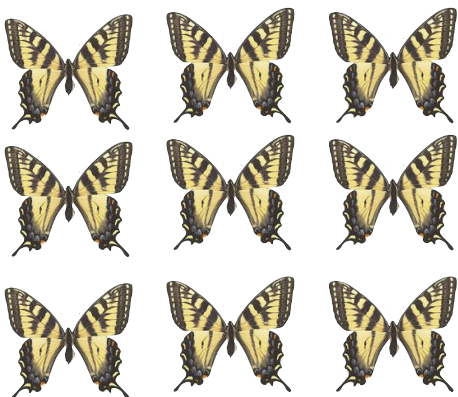
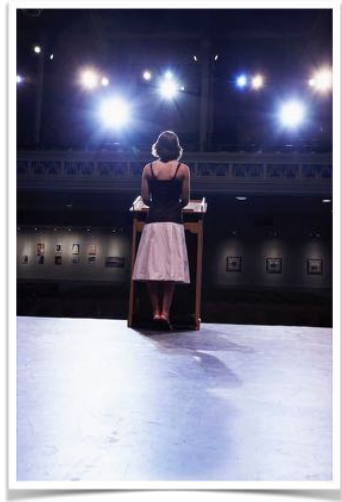
§ why nervousness is not the main issue



Love your stuff
– and show it!



ANXIETY



LEVEL

2

Pretty good

- Define your main messages.
- Follow a preparation protocol.
- Practice.

Task

1. Analyze the task.
2. Define your goal.
3. Pick your messages.

Content

4. Decide a strategy.
5. Compile your material.
6. Structure & simplify.

Delivery

8. Plan the delivery.
9. Try out and practice



- ▶ Work in sequence (1 item/slide).
- ▶ Remove the slide junk.
- ▶ Make the text, charts & images BIG.
- ▶ Reduce the number of bullet lists (< 25%).

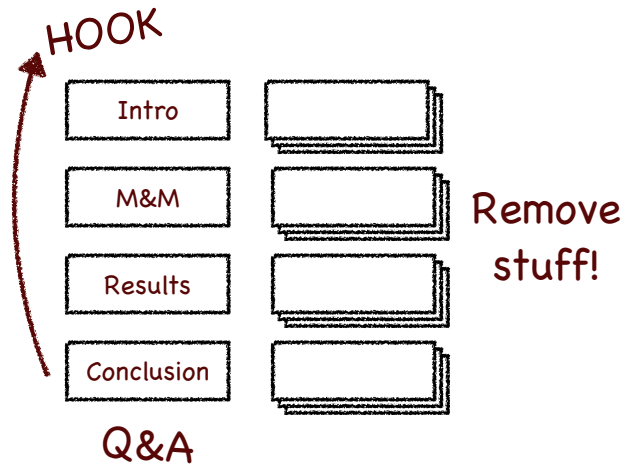


- ▶ Humanitarian importance?
- ▶ Innovation potential?
- ▶ Economic impact?
- ▶ Association to well-known subject/person/context?
- ▶ Contradiction/Mystery?
- ▶ Demonstration?

2/3

the c of this pa

will of itself.



- Less text.
- No “nice to know” data.
- Simpler graphs.



LEVEL

3

Outstanding

TED



Project your
enthusiasm
towards the
listeners.

Use your eyes.

Ask things.

Change
the pace &
take breaks.

Be silent.

(Use the “B” key)

Use the space



1. Start preparations by defining main messages.
2. Use Post-It notes to build a structure.
3. Invent a hook.
4. Prepare for 2/3 of the time.
5. Show your enthusiasm.

PowerPoint & Posters

with a clear message

“PowerPoint corrupts”

“Death by PowerPoint”

“PowerPoint is evil”

“PowerPoint makes you
stupid”

Do the planning
before the slides.

One item/slide.

Max 25% bullet
point slides



- Keep it simple.
- Think in sequence
- Focus on the visual.

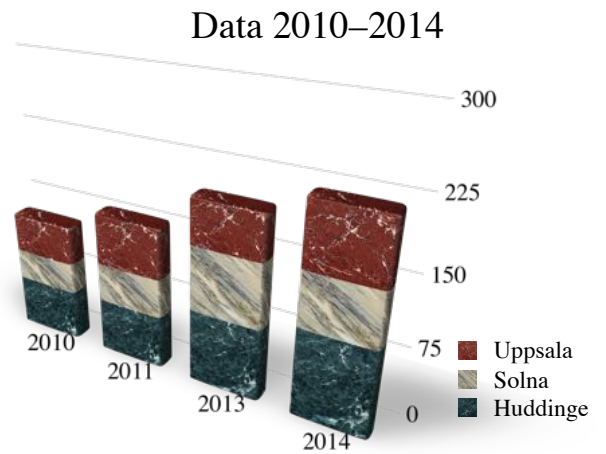


*Pizza
Powerpointo*

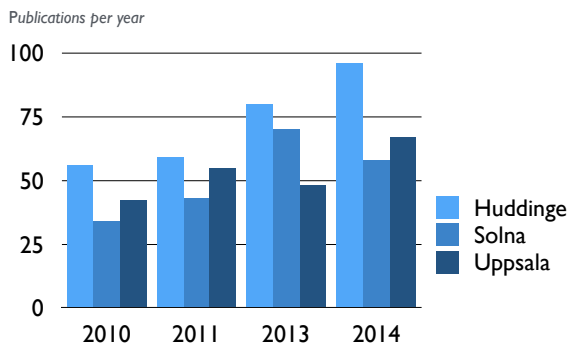
Obstacles are made
to be removed.



data/ink ratio



Huddinge produces most publications four years in a row



Research posters

1. PURPOSE

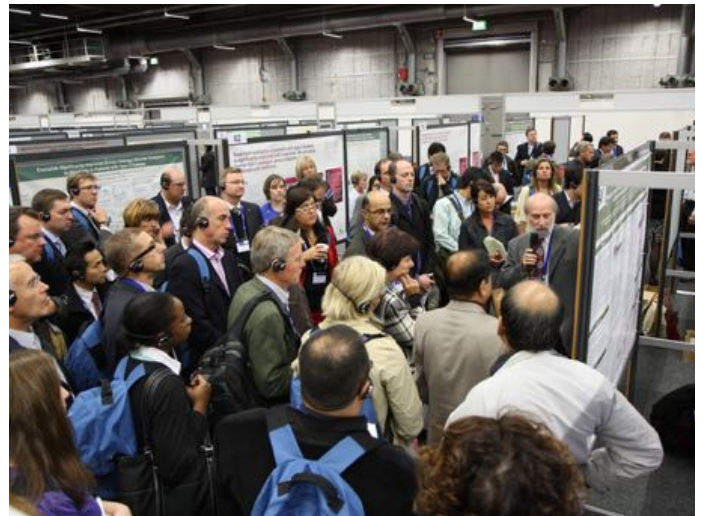
2. ENVIRONMENT

Why attend a scientific meeting?

- ▶ Educate yourself.
- ▶ Set your benchmarks.
- ▶ Get new ideas.
- ▶ Get feedback on preliminary results.
- ▶ Market your research and your group.
- ▶ Network.

“The primary purpose of presenting a poster is to complement yourself as you network with other scientists.”

Matt Carter: Designing Science Presentations



Stand alone presentation

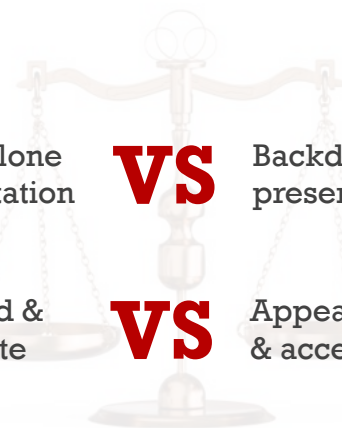
VS

Backdrop to oral presentations

Detailed & complete

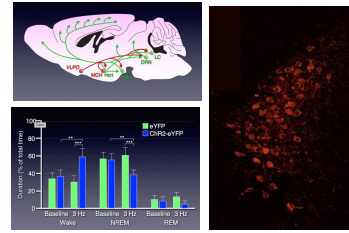
VS

Appealing & accessible.



INTELLECTUAL PREPARATION PHASE

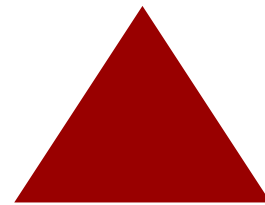
The stars of the show



The data displays!

An illustrated ABSTRACT

Write the
report abstract



Prepare
your visuals

Pick out
main
conclusions

BASIC DESIGN PHASE

Decide a
logical order.

Write brief text
for the different
components.

Start designing!
(PPT or InDesign)

Think
BIG

Add more text ...
but keep it
concise!

Let the
content breathe!

Don't be
too creative!



**Work on
the title.**

Remove stuff.

**Increase the
data/ink ratio
in the visuals.**

**Prepare
your verbal
explanations.**



Weaknesses
of scientific communication

1. Poor emotional engagement.

2. Strong, yet dysfunctional conventions.

3. Widespread do-it-yourself culture.

PROBLEM



PP
SOLUTION



DON'T BE BORING



**QUICK
FIX #1**

**IMRAD
article
writing**



**QUICK
FIX #2**

**Scientific
presentations**



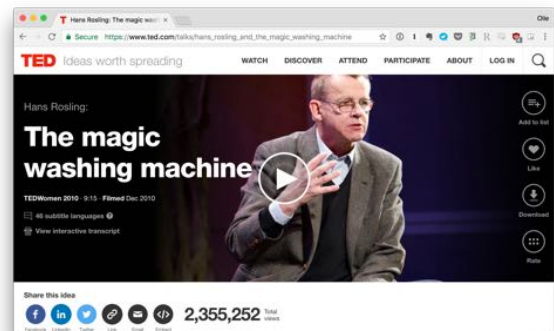
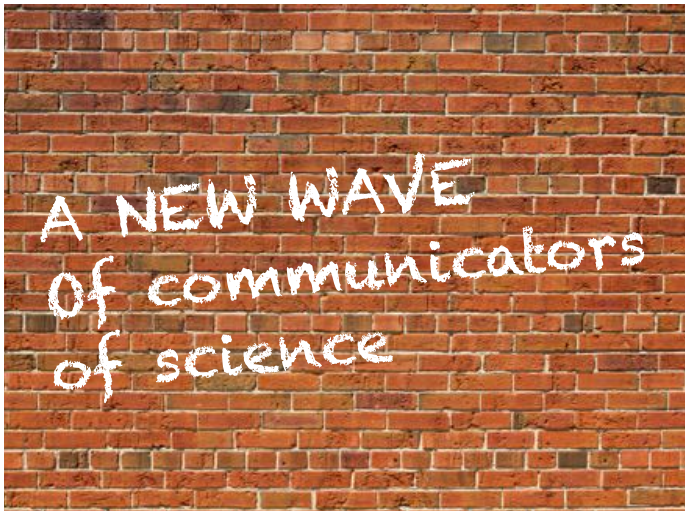
**QUICK
FIX #3**

**Science
dissemination**

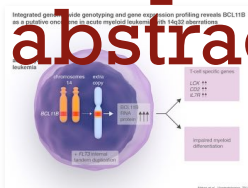


**QUICK
FIX #4**

General communication



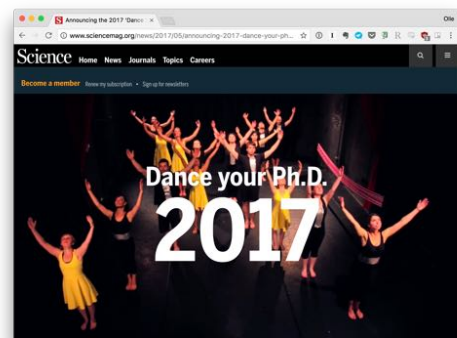
Graphical abstract



somersault1824.com



@ATJcagan



Scientists ↔ Scientists

Science Teachers → Students

Scientists Officials
Students Politicians
PhD students Healthcare
Corporations NGOs
Entrepreneurs Influencers



crastina.se