Research Skills

Advanced MSc and PhD Students

http://www.cs.bham.ac.uk/~jxb/rs.html

Lecture 13
Presentation Skills

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Presentations and public speaking

- **Key aspect** in communication
  - many resources online/books
  - **entire modules** on the topic

"Public speaking and oration are sometimes considered some of the most importantly valued skills that an individual can possess" [2]

- **Difficult process**
  - often underestimated by scientists
  - common feeling that many bad presentations are given

- Often makes the difference between **successful** and common **scientists**

Commitment

"*A speech is a solemn responsibility. The man who makes a bad thirty-minute speech to two hundred people wastes only half an hour of his own time. But he wastes one hundred hours of the audience's time, which should be a hanging offense*" -Jenkin Lloyd Jones [1]

When is this likely to happen?

- Poor competence in the field
- The final purpose of transferring knowledge is missed
- "The data speak for themselves" syndrome [1]
- Excessive ego or arrogance
- Excessive self-esteem or confidence
- Disregard for the audience

Purposes of a presentation

- Transfer (exchange) knowledge to (with) an audience
  - one to many at the same time (for instance at conferences, seminars)

- (Interactive) live experience
  - Words and ideas are conveyed with intonations, facial expressions, pauses... and subtle body language communication
  - Spoken language and images (slides) are combined to achieve effective descriptions, explanations

- Association between **scientific work** and **real people** help **memorising**. For instance meeting a famous scientist, or simply associate a work with a face and a personality

Communication process

SPEAKER → IDEA → MESSAGE → MEDIUM → AUDIENCE → RESPONSE
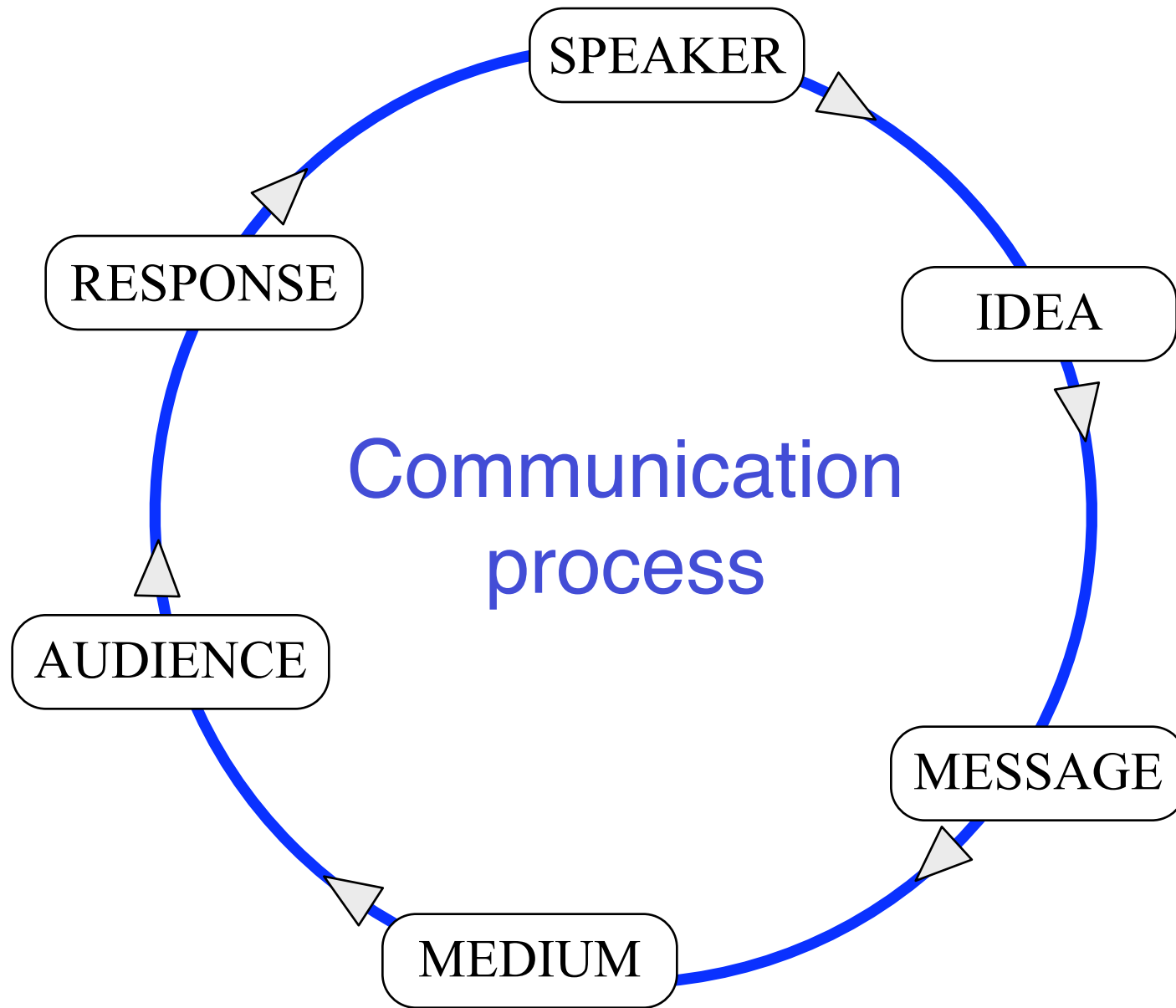
"who is saying what to whom using what medium with what effects?" [2]

Speaker

affects the audience according to

- Role (student presentation, keynote speaker, ...)

- Credibility (one is known to be an expert in the field)

- Perceived power (charisma)

- Presentation skills acquired through experience

Idea (work, progress, achievement)

Main reasons to give a presentation
- One has discovered something
- One knows something others might not
- One believes (has a feeling) of relevant facts
- One needs to show progress or development

The **idea** is **very important** to the speaker
- An important idea gives enthusiasm to the speaker
- An important idea to be communicated justifies the effort of speaker and audience
- If the idea is not important to the speaker, very unlikely it will be to the audience

The idea is why we are all here

Message

Carefully designed structure of thoughts presented through the speaker's

- Words
- Visual aids
- Vocal patterns
- Body language, gestures

Shaping the message : the speaker has the faculty of choosing the shape of messages (how to deliver ideas)

- with a certain order, flow
- with certain organisation of material/information
- with a certain choice of words/visual aids
- the way the audience is challenged to receive the message

Medium

Voice (could be amplified, broadcast, ...)
➡ should be clear, sufficiently loud to be understood by anyone listening

Screens, projectors, handouts, objects to be shown
➡ clearly visible

Language
➡ understandable (for example plain English),
➡ employ a fairly formal register (do not use slang, familiar expressions),
➡ do not use difficult words, idioms (non-native English speakers might give your talk a wide berth)

Audience

Assess the audience and tailor your presentation

- It is easier to address an audience of experts (one can go in technical details)
- It is more difficult - but often very useful - to address an audience of non-experts. The talk needs to be more coherent, logical, straight forward.
- Addressing a mixed audience (ultimate skill)
  - Details or difficult concepts can be mentioned with concluding complementary summaries for the non-experts
  - Images can hide important details that can be significant to experts but do not bother non-experts
  - . . .

Response

Even the best speaker might not get the desired response from the audience

• early morning lecture on Monday after a major student party on the week end

• last talk of the day at a conference, people are tired

• the environment is noisy, too hot, too dark...

Response - II

The speaker should

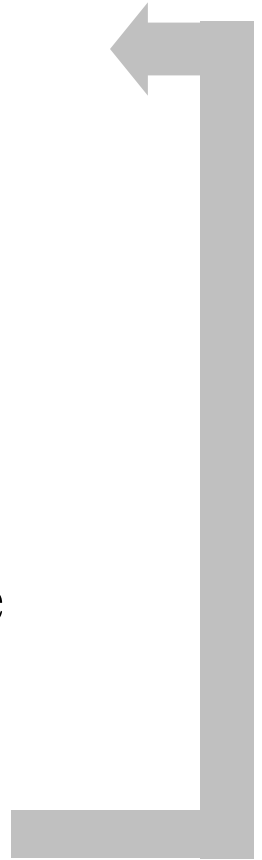- observe the audience's reaction to the talk

- perceive the general mood, attention level, level of understanding

- update his/her **internal model** of the audience

- adjust accordingly the language and words to improve the positive response

Preparing a talk

Initial steps

- What is the main idea to convey?

- What is the level of the audience?

- Start planning the content

- Fitting it into the program:
  - know the place
  - time
  - available time (length of your talk)
  - facilities

The content

Main **points for introduction**.

- What is the necessary background to understand the rest of the talk?

- Should the terminology be explained to avoid confusion?

- What is the best way to start off?

- How can one involve people and get them interested from the start?

The content - II

Main **points for the body**

What is **relevant** to convey effectively the idea?

- make a good choice of aspects to describe

- separate essential information from additional information or details (note that essential information is much less than what it seems at first)

- Order essential information for the audience understanding

- Decide whether to insert other additional information

The content - III

Conclusion

- many final points and long conclusions are not effective

- make very few, but strong points (take-home messages)

Verify that the content follows a structure of introduction, body, conclusion

Drafting the talk

Preparing a written draft for the talk is very time demanding, but often extremely useful

• It forces the reader to go carefully through each passage of the talk

• It may help finding concepts said in the wrong order

• It may help to figure out (before the talk) that some concepts are difficult to explain and get you stuck

• It may help in planning the use of more effective and appealing words

➡ it makes it easier to spot problems

"Death (or worse) to those who run overtime"

"*It is rude and egotistical to exceed your allotted time*"

"*Running overtime also suggests a lack of preparation and experience*" [1]

• People in the audience might get annoyed

• The speaker could be reminded to hurry for the final points

• The speaker should be interrupted by the chairman, otherwise following speakers will have less time

Practice

- It is recommended to practice the talk several times, simulating the talk with precise timing

- It is very useful to ask for feedback when practising

- Ultimate practising technique: video-record yourself while you practice

Selected sources

[1] "Tips for preparing scientific presentations" (2007), Office of Naval Research [online at http://www.onr.navy.mil/about/speaking_tips/ accessed on 12 Nov 2007

[2] "Public speaking" (2007), Wikipedia [online at http://en.wikipedia.org/wiki/Public_speech , accessed on 13 Nov 2007]

[3] "Dot-dot-dot, dash-dash-dash, no more", The New York Times (2006) [online at http://www.nytimes.com/2006/02/12/weekinreview/12word.html, accessed 13 Nov 2007]