Research Skills

Advanced MSc and PhD Students

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

Lecture 14
Presentation Skills - II

Andrea Soltoggio

http://www.cs.bham.ac.uk/~aqs

Tips and recommendations for talks and presentations (follows lecture 13)

Commitment

Be sure you are well prepared

- start preparing your talk **well in advance**, time helps to **rearrange thoughts**, ideas, or find out better ways to explain concepts
- make backups of your presentation slides. Prepare different file formats (e.g. pdf, powerpoint, etc.)
- make sure you can deal with problems (e.g. do not chose to arrive with the last train, have a usb key ready if your computer does not work, etc.)
- go to your talk in your best psychophysical condition (well rested, calm, etc.)

Preparing the talk

Your slides ARE NOT your talk

- Slides are a **visual aid only,** the speaker should carry the talk, not the slides

- Yet one can use slides as “concept”cards in planning aspects to mention and their order

- Have the structure and flow of the talk in your mind

- When considering describing details, always remember the role they play for the general understanding

Preparing the slides

- Inexpert speakers tend to overload the talk and slides with information

- The point is not showing that one knows many things, but to convey an idea or a message in the simplest possible way

- Keep in mind that if a slide crowded with text shows up, people do not know whether to read, to listen, or where to look at

- Note : the slides for this lecture are prepared for reference to the students as well. They might contain more text than what is advisable for a presentation

Preparing the slides - II

Better to use large fonts, 28pt for example

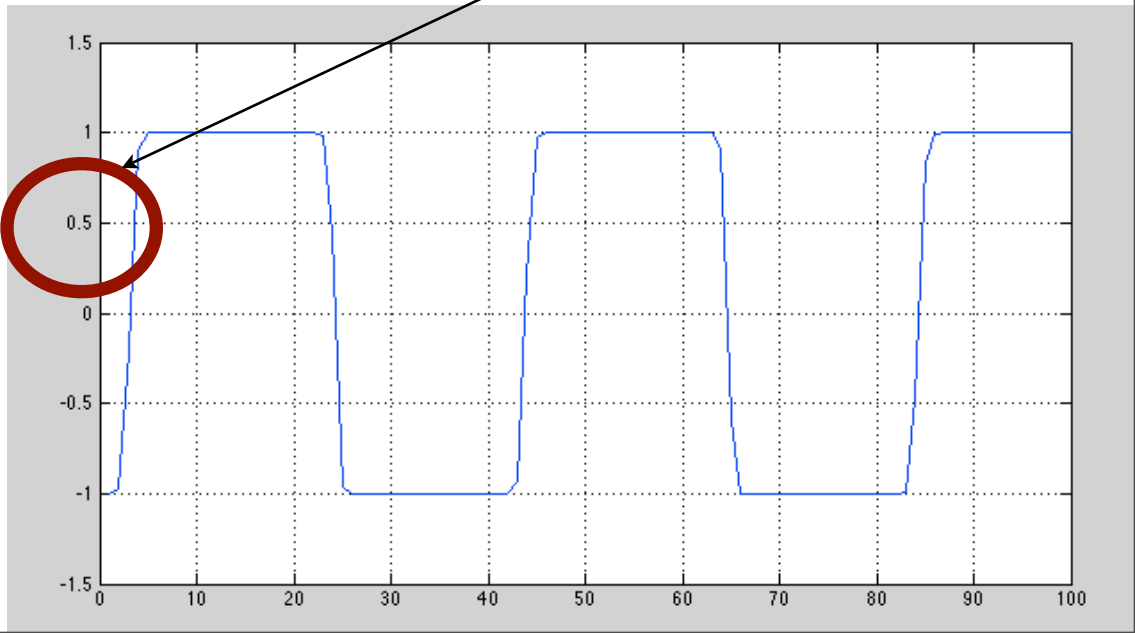
A title can be even bigger, 44

What do you think of size 14?

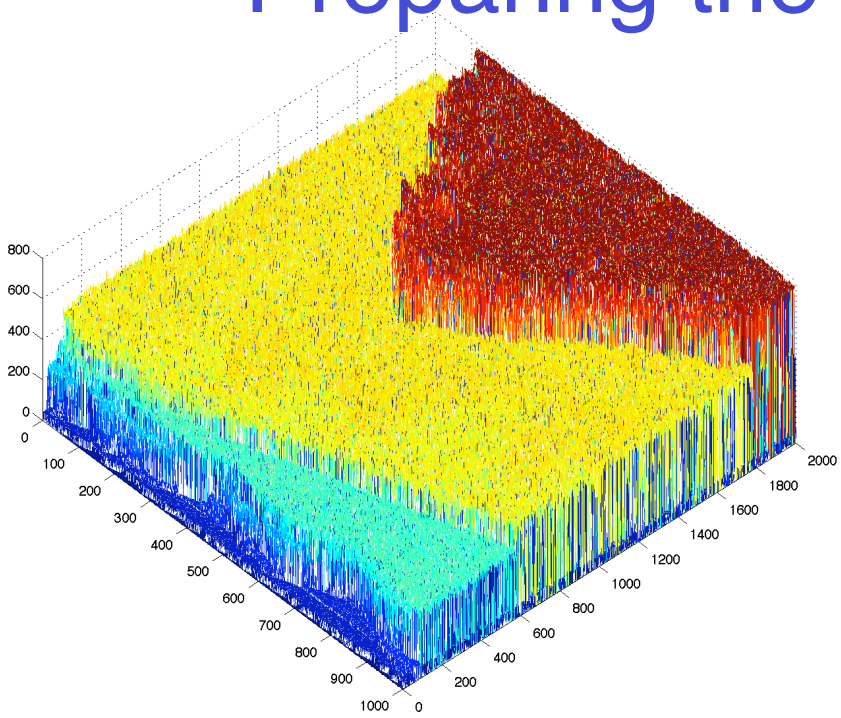
Imagine you have many things to say. You start writing and soon you realise you don't have enough space. So you decrease the font size and insert many more sentences. Now it looks like you have many things to say and hopefully you will impress the audience. Or maybe not...

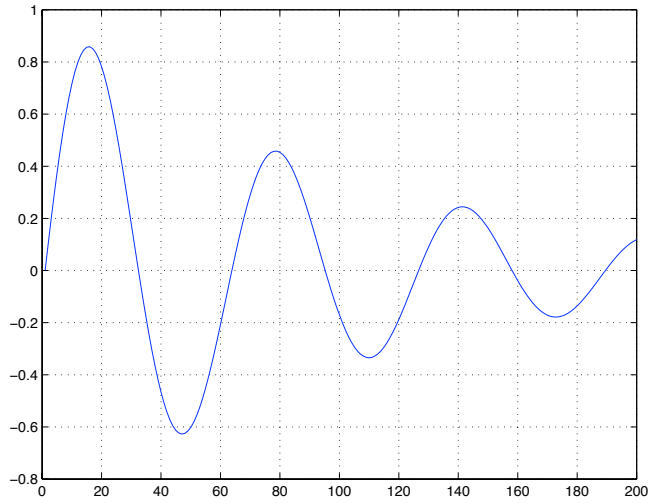
*Leave spaces! Between your sentences, images, etc. A **crammed page** might not be very attractive, look at this graph on the right*

What is this value



Preparing the slides - Graphs





- Graphs are great to show results but though they are immediate to read for the speaker, that is not always so for the audience
- The meaning of each dimension needs to be carefully specified, written visibly and explained
- Often the values on the axes are difficult to read
- If the are colours, they need to be explained

Preparing the slides - Math

"Many people, even mathematically trained scientists, tune out when math is introduced into a talk" [1]

Often an equation can be explained with words and one can refer to a paper for exact details

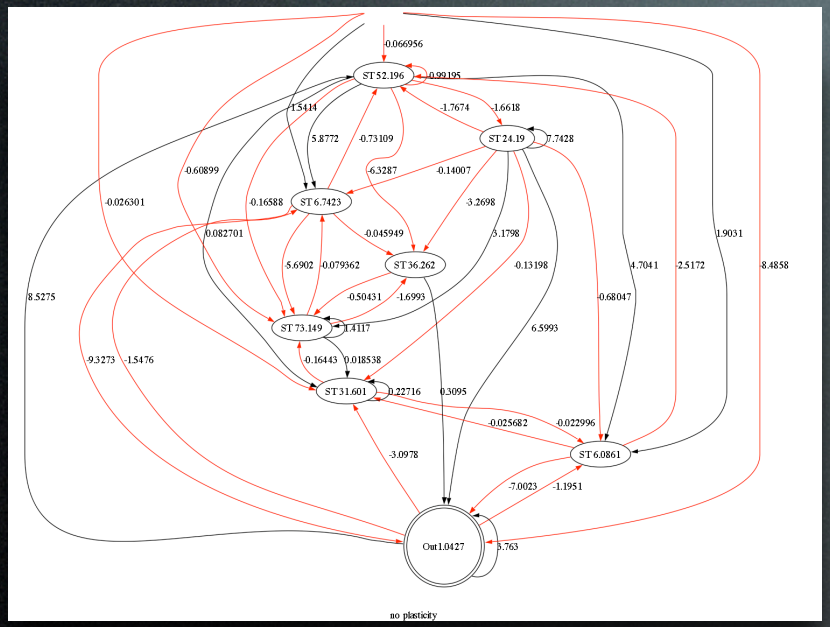
Example : equation of Continuous Time Neural Network

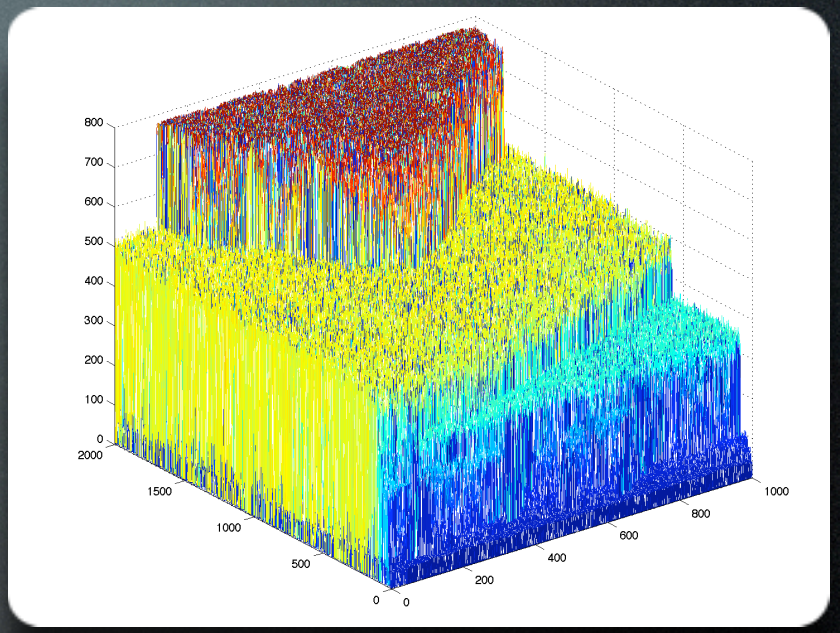
$$\frac{\mathrm{d}\gamma_i(t)}{\mathrm{d}t} = \frac{1}{\tau_i}\left(-\gamma_i(t) + \sum_{j=1}^{N} w_{ij} A_j(t) + \sum_{k=1}^{S} w_{ik} I_K(t) \right)$$

In words:

*Some neurons are **slower - other faster** - in changing their activation values. The speed in change depends on the time-constant τ (the bigger, the slower)* [5]

Graphics & colours





Some graphical templates can look attractive

Graphics though should be used **to help focusing** on the idea, not showing off graphic skills

Animations should be used ONLY when they help understanding

What can the audience retain?

You have been pouring over your research topic for months or years. The audience hears it for the first time and all in 10-20 minutes

- Tests show that most of people after a talk do not remember even basic points
- Background and method should be explained as simple as possible
- Few main and **strong messages** should be given

Often talks are meant to **advertise** your work, make it look attractive and interesting, not to explain it in detail

What can the audience retain? - II

Most inexpert speakers think the more time they have the better they can explain but :

- people can focus and concentrate for a limited time (15-18 minutes)

- long talks require skills to
  - keep people focused
  - arrange the flow of thoughts in the way the audience does not miss the main points
  - manage effectively the time

Brevity

Giving talks is not about talking to fill the allotted time
Concepts should be expressed with few, incisive words

Brevity is much appreciated, it helps to remember but it might be difficult to achieve

Mark Twain received this telegram from a publisher:
NEED 2-PAGE SHORT STORY TWO DAYS.
Twain replied:
NO CAN DO 2 PAGES TWO DAYS. CAN DO 30 PAGES 2 DAYS. NEED 30 DAYS TO DO 2 PAGES. [3]

How to beat fear

"The fear of public speaking is called glossophobia (or, informally, "stage fright"). It is believed to be the single most common phobia — affecting as much as 75% of the population." [2]

- A well prepared talk will run smoothly and will be over before you know

- Fear and panic boost when one gets stuck
- One gets stuck more likely when in panic

➡ Be well prepared and practise over and over to avoid the vicious circle. Having in mind the next passage of the talk often gets you out of trouble!

Talking to the public

- The 8-seconds fast start : people decide in a very short time whether the speaker is worthy listening to or not
  - Do not panic, but know in advance how you will start. Check you are not starting with to many “ehmm”, “aahh”...
- The speaker controls the situation. If you are the speaker, then take control of the situation
- Make pauses
  - to think
  - to understand where you are in the room
  - to look at the audience
  - to breath

Talking to the public - II

- Survey the audience. Make eye contact. Do not look always at the same person. Look also at people in the back and at the corners of the room. Do not create a glass wall between you and the audience

- Posture: keep your head up, do not speak when turned (if you do, people will not hear), do not move away from the microphone

- Articulate the words properly (being nervous could make you speak faster)

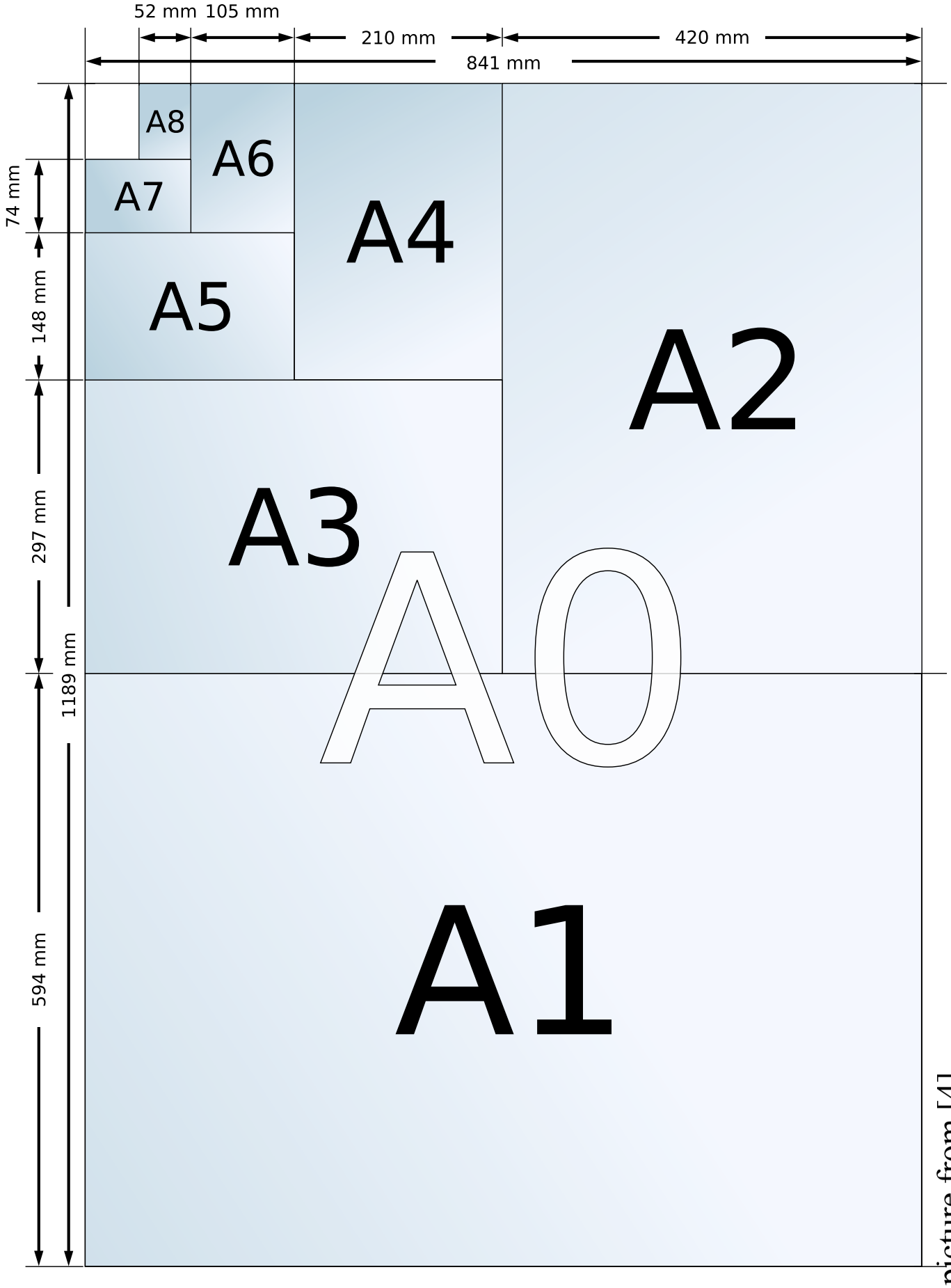
Preparing and presenting a poster

Posters

- A graphically enhanced, immediate and densely summarised version of your work, printed on one large sheet and to be presented at conferences, meetings or others events

- Usually A0 or A1
- A1 (841 x 594 mm) is equivalent to 4 A3
- A0 (1189 x 841 mm) 1 sqm is twice an A1

- A poster is **not** similar **at all** in the format and appearance to a paper



picture from [4]

Poster preparation

Difficult trade-off between technical and appealing appearance

General guidelines

- **Maximise brevity**
- Maximise fonts
- Use graphics to guide the observer eyes, use colours, shapes and lines when they help to direct the attention
- Use bullet points, short expressions (people very seldom read long paragraphs in posters)
- Highlight **topic** and **results** for best understanding of the general idea

Poster presentations

General guidelines

- Stay next to your poster, leaving the poster shows little commitment and interest
- When asked, explain points of your poster very concisely without engaging in a long speech
- Sometimes people tend to monopolise your poster asking many questions
  - time for poster presentation is limited
  - other people interested in your work might skip your poster if you are too busy talking to someone already
  - look around for potential public, be open, friendly and sociable : poster presentations are excellent way to meet colleagues and researchers in your field

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]

[4] “Paper size” 2007, Wikipedia [online at http://en.wikipedia.org/wiki/Image:A_size_illustration.svg, accessed 14Nov 2007]

[5] Beer and Gallagher (1992) “*Evolving dynamical neural networks for adaptive behavior”, Adaptive Behavior, 1, 91-122.*