Preparing and Delivering Presentations

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… including material from J Nelson Amaral, M desJardins and others…

Making IT happen Computing Science

General Comments about presentations in general:

People are uni-processors: if their reading, their NOT listening. Therefore, it makes sense to write as LITTLE material on your slides as possible. You should avoid complete sentences; by using Bullets! You should use LARGE fonts. An be sure to also use many pictures!

Give a simple examples FIRST, before giving the formal definitions, theorems, etc. Then perhaps use that example to "instantiate" the definitions, etc. (Don't worry: people typically do an amazingly great job of generalizing from such examples. Most of the time.) Help them parse by splitting out phrases on separate lines.

Try to avoid technical terms, if at all possible. (Or at least give a simple example of the idea.

Be sure to re-read slids, and check!

4.1

General Comments about presentations in general:

Move over...

Hard to read color?
Too small?

No bullets...
Bad line breaks

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Try to avoid technical terms, if at all possible. (Or at least give a simple example of the idea.)

Be sure to re-read slids, and check!

Just skipped?

Typos

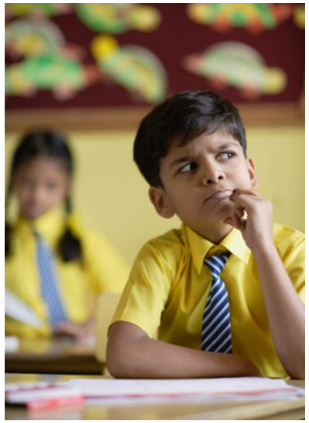
Why have this junk?? What does it mean?

4.1

... lighting? ... movement? ... monotone voice?

Context? Why am I saying this?

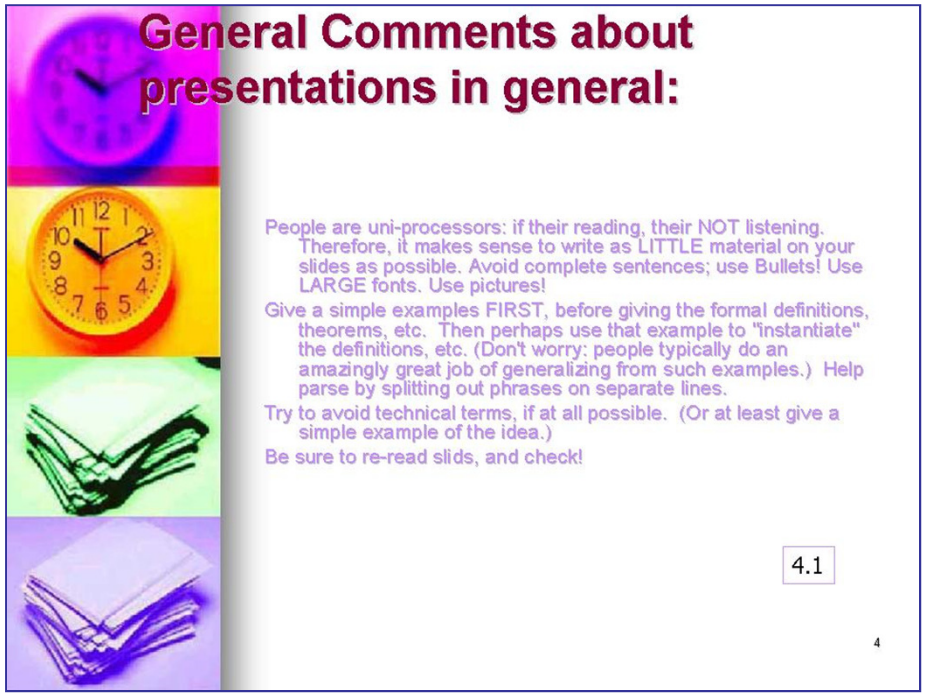
Presentations

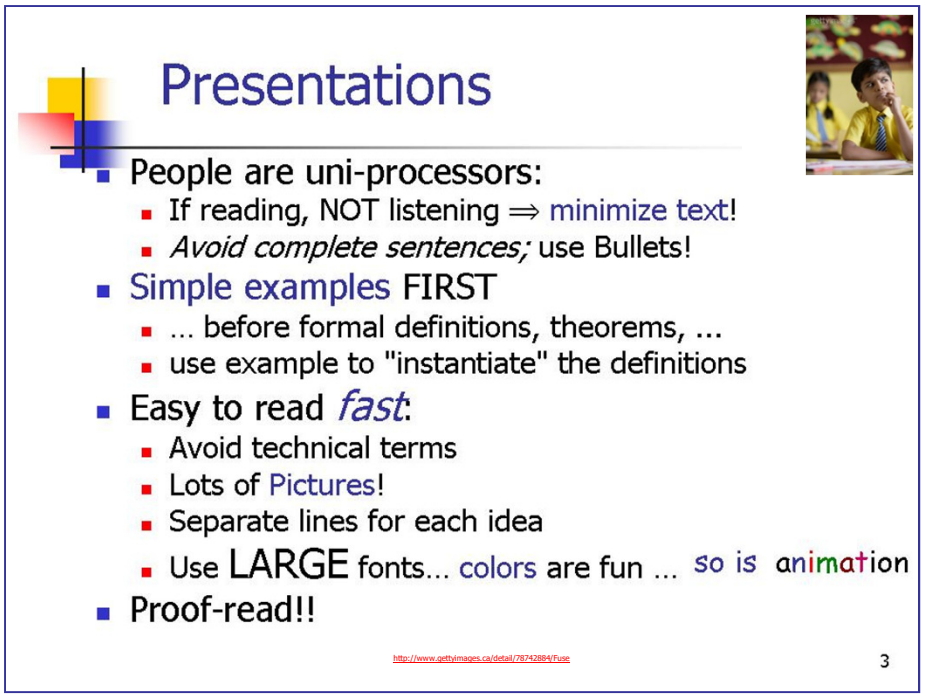


- People are uni-processors:
  - If reading, NOT listening ⇒ minimize text!
  - *Don't need complete sentences;* use Bullets!
- Simple examples FIRST
  - … before formal definitions, theorems, ...
  - use example to "instantiate" the definitions
- Easy to read *fast:*
  - Avoid technical terms
  - Include relevant Pictures!
  - Separate lines for each idea
  - Use LARGE fonts… colors are fun … so is animation
- Proof-read!!

http://www.gettyimages.ca/detail/78742884/Fuse

Which would you prefer?





Outline

- Preparing the presentation
  - Content:
    What material to present?
  - Form:
    How to show that material?
- Delivering the presentation
  - Before presentation
  - During presentation

While focus is on *Research* Presentations, similar ideas for *Course* presentations

Why Have Presentations?

- Researchers / Developers / …
  - Important to have ideas
  - Important to develop/validate ideas
  - Important to **disseminate** ideas
    - Publications
    - Presentations
      - locally: in lab, team, …
      - non-locally: in workshops, conferences, …
- Instructors
  - Present course material
- …

Goal of Presentation

- Possible Purpose(s):
  - to entertain
  - to inspire
  - to persuade
  - to inform or educate
- Goal of Research Presentation:
  - Say enough to get them excited… and
  - motivated to read paper!
- Goal of Educational Presentation:
  - Emphasize high points of text
  - Reinforce ideas
  - Give examples
  - Bring up auxiliary issues

http://toastofedmonton.shawwebspace.ca/pages/view/planning_a_presentation/

Presentation ~ Story

- Tell a story!!
- Should FLOW…
  - Beginning, middle, end
  - Not a shopping list!
- Structured, to answer…
  - Task itself
    - Def'n: What is the problem?
    - Motivation: Why should the audience care?
  - Results…
    - How was it solved? (Theoretical? Empirical? …)
    - Why relevant? …impressive?
  - Conclusion
    - What do you want them to remember?

Here: CHRONOLOGICAL…

http://www.bbc.co.uk/scotland/education/wwww/buildings/standard/shopping/?item=list

Prepare for your Audience

- Goal:
  for intended audience to understand material
- Know your audience!
  - If a "general audience":
    Give the necessary background
  - If talking to researchers in your field:
    Don't waste time on basics
- Imagine you didn't know this material
  - What would YOU need to get it?
- Emphasize
  - *what is important*
  - *(what **you** have done)*
  - *why they should care!*

M desJardins

How Much to Say?

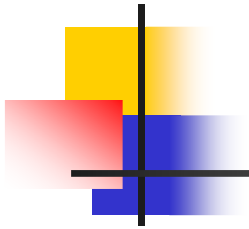
- What do you want
  your intended audience
  to know, when done?
  - Say THAT!
  - Say ONLY THAT!
    - Everything you say should relate to this msg(s)!
- Having too much can be bad…
  - Superset of a good talk is *NOT* a better talk

What (not) to say …

- Think of what you'd LIKE to hear…
  - High points; not irrelevant details
- Think of what you'd be able to UNDERSTAND in talk
  - Not complicated algorithms, complicated proofs, …
- Proof?
  - If essential: Sketch: Yes Details: No
- Algorithm?
  - If essential: Sketch: Yes Details: No
- Tangentially related material – eg, things you tried?
  - If audience would think about it ⇒ Yes (sketch)
  - If really obscure ⇒ No
- Unmotivated, hard-to-describe alg… that didn't work?
  - No!

Timing

- Know how long you have
  - How long is the talk? Are questions included?
- How many slides?
  - … depends on your own pacing…
- Can *rarely* say *everything* about a topic, so don't worry about skipping some things!
- Better to go slightly UNDER time, vs OVER time



Other Thoughts, wrt Contents

- Be sure **YOU understand the material**!
  - … even if someone else's slides!
  - Heuristic:
    - Think through to one level more depth than slides…
- **Re-read slides**
  - make sure they are understandable
  - make sure they "flow"
- **Ok to be cute**… but not too cute…
  - Never have off-color comments

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Make it easy for Audience to Track

- Pictures better than words
  - … if relevant!
- Use colors consistently
  - Eg, write everything that the user types, in blue
- A full slide of text can be overwhelming!
  - Use animation to present information incrementally.
- Use line breaks to help parse
- Notation: Do not use the same variable for many purposes... not even if in different fonts! Think of saying it: big_A vs little_a vs A vs B

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Make EASY to understand

- => vs $\Rightarrow$
- != vs $\neq$
- a=<2,3> vs a = $\langle 2,3 \rangle$
- * vs $\times$
- ε vs $\in$
- Use spacing to help viewer

- Be aware that some symbols are ambiguous
  - l vs 1; 0 vs 0
  - R vs $\Re$
- Use appropriate notation:
- { …} for set; […] for tuple; …

A=f(b(x),g(y)) forall x,y

A = f(b(x), g(y)) forall x, y

Help Viewer Understand Tables

	Age	Gender	Height	Label
P1	25	M	5′11″	+
P2	33	F	5′6″	+
P3	5	M	4′3″	-

	Age	Gender	Height	Label
P1	25	M	5′11″	+
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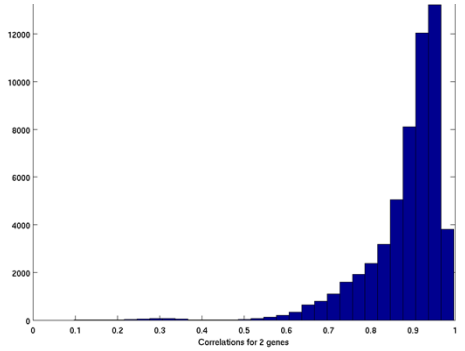
P3	5	M	4′3″	–

Easy to Understand

- YOU control the space in your slides…
  - Use it effectively!
- Make figures LARGE!

Yadda Yadda Yadda

- Blahs (332)
- P: 0.8836 ± 0.0928



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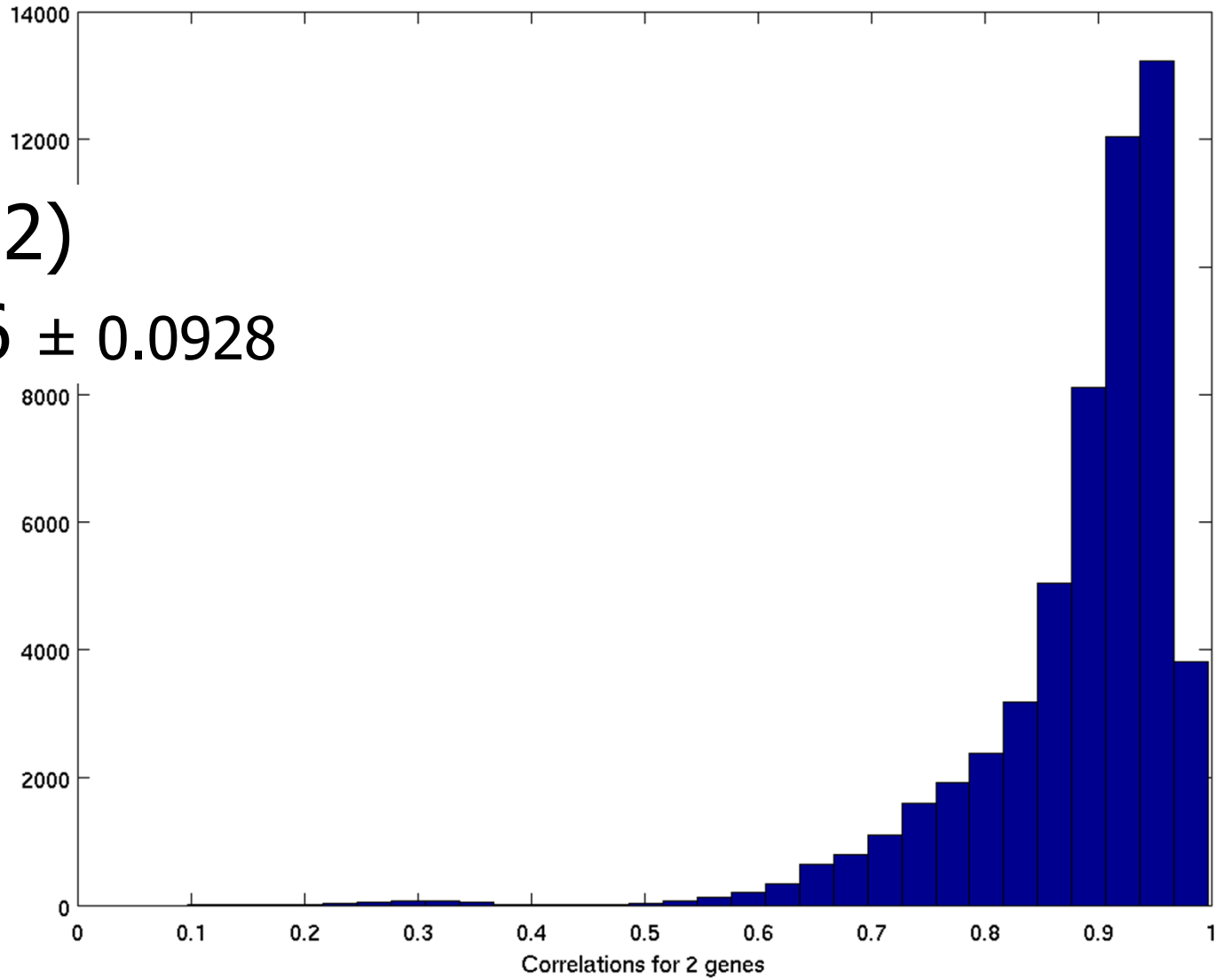


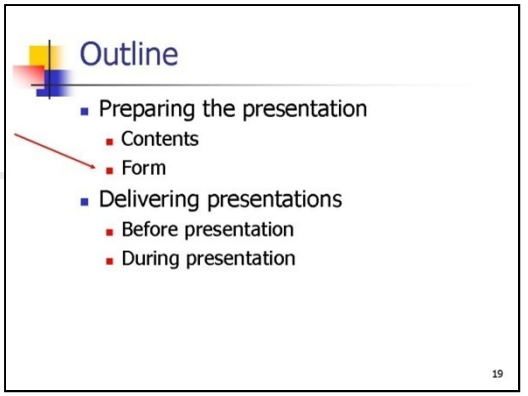
Graphs

- Label axes of graphs
  - Accuracy? Error? Inches? Miles? …
- Do NOT use "Fig 1" or "Table 2"
  - Unlike paper, viewer cannot go back …
  - Readers will NOT remember …

Make EASY to understand

- In general…
  If something helps
  readers understand **papers**,
  it probably applies here, to **presentations**!
- Define terms…
  - … before use!
  - Use in example, to illustrate

Use RoadMap



- Roadmap slides
  - if >15 minutes
  - helps "wake people up"
- Organization
  - *Tell'em what you're going to tell'em*
    - ≈1-2 minutes
  - *Tell'em*
  - *Tell'em what you told'em*
    - ≈1 slide (1 minute)

Timing Issues

- Manage time
  - Have "accordion slides"
  - If necessary, skip material
    - Plan for this…

- People best remember the *LAST* thing you said
  - … Contributions, Future Work

    ≡ What I did, What I did NOT do
  - … Future Work, Contributions

Outline

- Preparing the presentation
  - Content
  - Form
- Delivering the presentation
  - Before presentation
  - During presentation

Just in case …

- Real problem if
  - you lose your presentation…
  - your laptop dies …

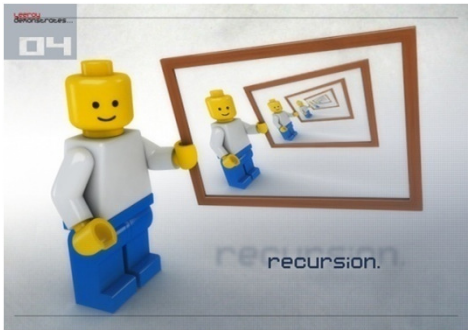
- Back-up copy!
  - Flash drive
  - On-line
  - …

http://nelsoncentral.wikispaces.com/backingup

http://blog.bluemountainlodges.ca/wp-content/uploads/laptop.jpg

Practice, Practice, Practice

- **Practice!**
  Give talk to
  - professional colleagues (students, advisor, collaborators)
  - friends, or spouse, or …
- Include slide numbers (at least during practice)
- Never give a talk for the first time ☺
  - If inexperienced, practice your timing:
    - ~2 times on your own, to get the general flow
    - ≥1 dry run to work out the kinks
    - A run-through on your own, night before the talk



http://leerydemonstrates.com/recusion

Just Before Presentation

- You are in charge!
  - Arrive early, to engineer your room
    - lighting
    - decide where to stand
      - by SCREEN, not middle of room
    - move obstacles away
    - …

- Just in case…
  - Plug in laptop
  - Turn *off* cell phone, messaging (Skype, ooVoo), …
  - …

Lighting

With lights on, in front

With lights off

Large Images!

- If necessary … possible…

  MOVE projector to get LARGE image

During Presentation: Interact with Audience

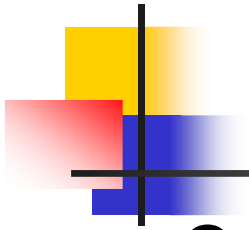
- *Don't just read your slides!*
- Interact with the audience!
  - Make eye contact
  - See if audience is tracking
  - Ask questions!
- Adjust your voice for **emphasis** …
- Pause

Move Around !

- Move!
  - Do not just sit …
  - You can (should!) move around
  - Don’t fidget
  - Point to PRESENTATION, not to your laptop!
- “Work the room” … effective motions:
  - To emphasize something, or catch audience's attention:
    Walk closer to the audience and stop
  - To make a new point / change topic:
    Move to new location
  - When asking question:
    Walk towards the audience and wait for a reply
    … after getting reply, return to original position

Toastmaster

http://cdn.chv.me/images/thumbnails/w-dnmpmw.png.thumb_400x400.jpg



Questions

- Questions from audience are typically good!
  - Helps audience "wake up"!
  - Helps you gauge how well they are tracking
- Feel free to "delay" answer
  - If relevant slides coming later
  - If off-topic: "take this off-line"
- If question is relevant, but not anticipated: Ok to pause, to think it through…
- Reward the questioner
  - … even if the question is …sub-optimal …

If you make a mistake …

- Don’t fret, pout, get upset …
- If critical…
  - just go back to problem and fix it!
  - or… fix it when necessary
- If not critical, just go on!
  - Perhaps mention this issue at END
  - … or not …

Overcoming Nervousness

- Realize
  - you are an expert on this topic!
    - … you know it better than the audience!
  - audience wants you to succeed!
- Prepare thoroughly
- Concentrate on the message – not the medium
- Gain experience

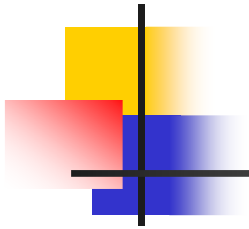
http://toastofedmonton.shawwebspace.ca/pages/view/overcoming_nervousness/

Revising Material ?

- Few presentations are perfect
  Few presentations are "one off"s
- If you will give presentation again…
  - Do 'post mortem' after presentation
  - Make changes to slides
  - … or just add notes of what you need to change

Some Useful Resources

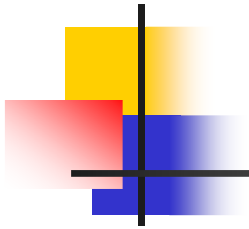
- Toastmasters
  http://toastofedmonton.shawwebspace.ca/pages/view/tips_for_speakers/
  http://toastofedmonton.shawwebspace.ca/pages/view/i_speak_two_languages__body_and_/
- Mark Hill, "Oral presentation advice"
- Patrick Winston, "Some lecturing heuristics"
- Simon Jones, et al., "How to give a good research talk"
- Dave Patterson, "How to have a bad career in research/academia"



Summary

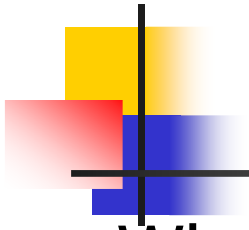
- Preparing material
  - Tell a story!
  - Think of what you want audience to know
    - Include that … only that…
    - Be concise, focused
  - Large print, easy to follow…
- Delivering material
  - Practice!
  - Engineer your environment to facilitate communication
  - Relax, and Enjoy!

Any questions??



Other Material

- Series of Presentations
- Use Diagrams
- Context information
- Auxiliary Slides
- Posting material
- Posters



Series of Presentations

- When giving a SEQUENCE of related presentations
  - Eg, a course, or seminar series, or …
- Have "landmark slides" covering ENTIRE series
- Take time at start of each lecture to…
  - … set the context (wrt global "landmark slides")
  - … REVIEW previous material
- At end of each lecture:
  - summarize current situation
  - point to future material

Return

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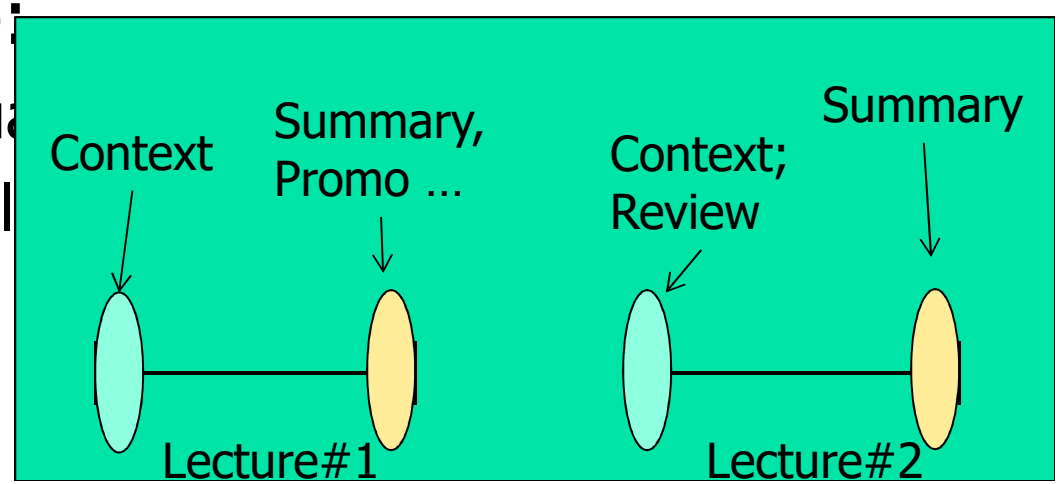
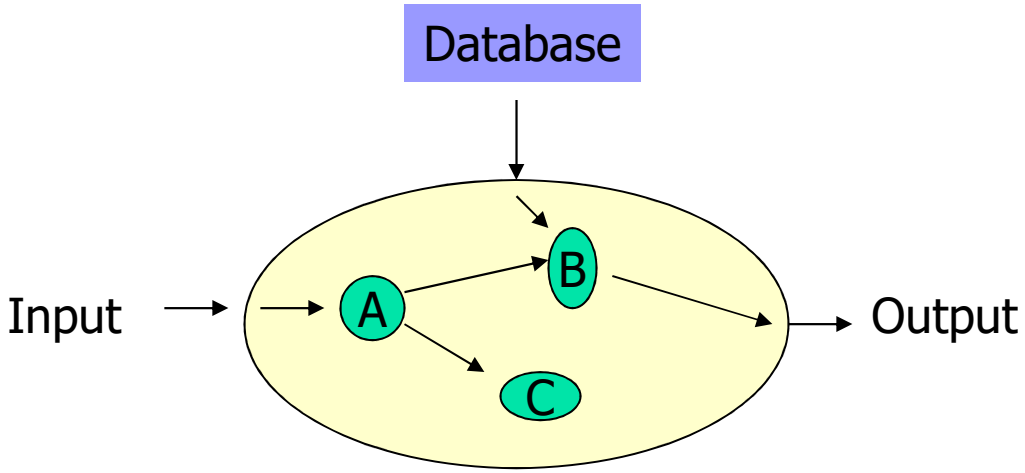


Return

Use Diagrams !

- Many Computing Science ideas correspond to some *procedure*
  - Perhaps with subroutines…



- Distinguish Data from Process
- Be sure to include "implicit inputs"
  - Eg database

Return

Context info?

- Give context
  - Course: chapter in text, auxiliary readings, …
  - Research:
    - collaborators, funders
    - bibliography?? … only your results, if job talk
      - List… do NOT summarized one-by-one !
- If use image/ideas from others (web): give citation … get permission
  - Especially if slides are handed out

Return

Auxiliary Slides

- If you …
  - anticipate some questions
  - have tangentially related ideas

  have AUXILLIARY slides,
  at end of presentation!
- Use to answer questions
  … if necessary

- ? Use later, for longer talk ?

Return

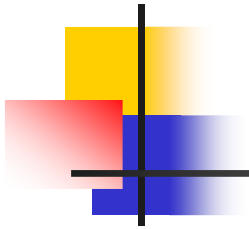
Posting Slides

- Should you post material?
  - For courses: Yes…
    Helps students to remember/review
- If so… when?
  - BEFORE your talk, vs AFTER ?
  - I prefer AFTER (to fix-up, subset, revise)
- If so… what medium?
  - I prefer PDF… if PPT, others can modify easily
- wrt Animation (overlay):
  - Have MULTIPLE slides if overlays
- If modification (post presentation):
  - Can post revised version…
  - but perhaps indicate updates…

Outline

- Oral Presentations
  - Preparing slides
  - Delivering presentations
- Posters
  - Preparing material
  - Presenting posters

Effective Poster: Contents



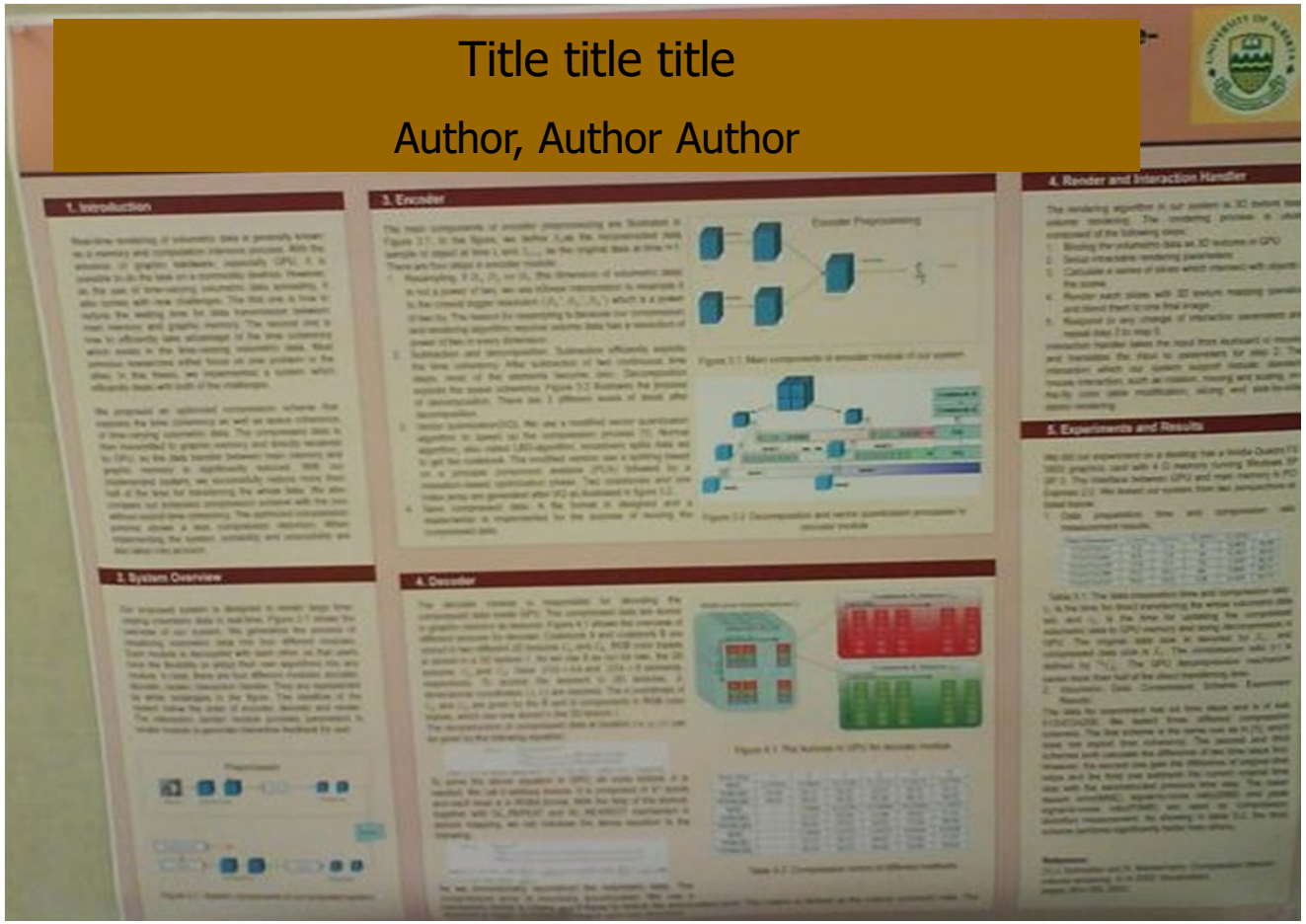
- Include
  - **BIG** idea? … simple to understand, quickly!
  - Use examples – in pictures!
    Better: **one** example,
    - many times to illustrate the basic ideas
- Framework
  - Foundations – what problem are you solving?
    Why should anyone care, if you succeed?
  - Your approach (high level)
  - Your results – theoretical, empirical, whatever…
- **Re-read it**, to make sure it is understandable

Effective Poster: Form

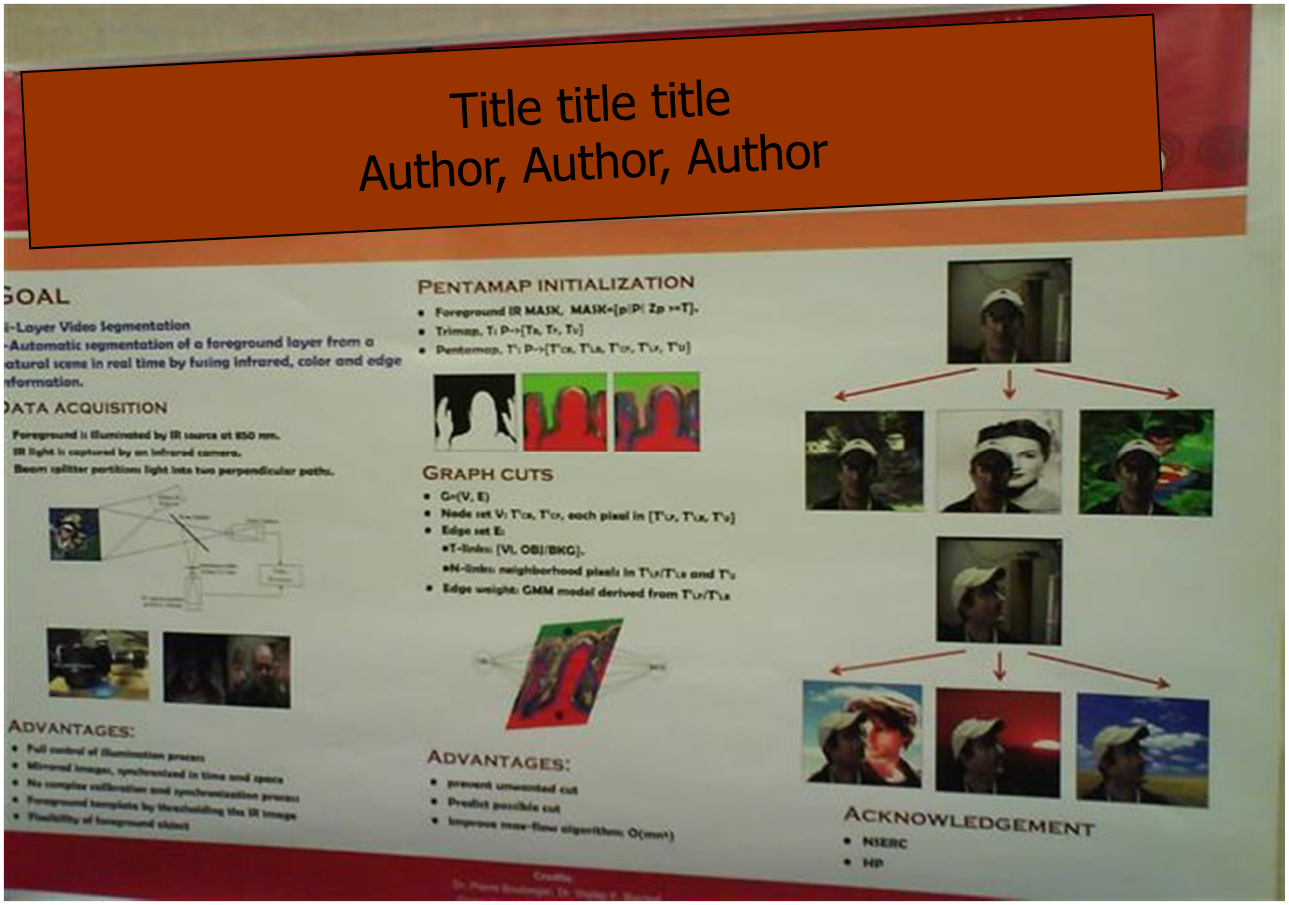
- Poster ≈ Presentation (ppt), … not essay
  … easy on the eyes…
  with
  - pictures
  - few words (lots of white space)
  - large letters

- Stand 2-3meters from poster.
  - Should get most of the ideas
  - … based only on the figures,
    w/out the "small print"

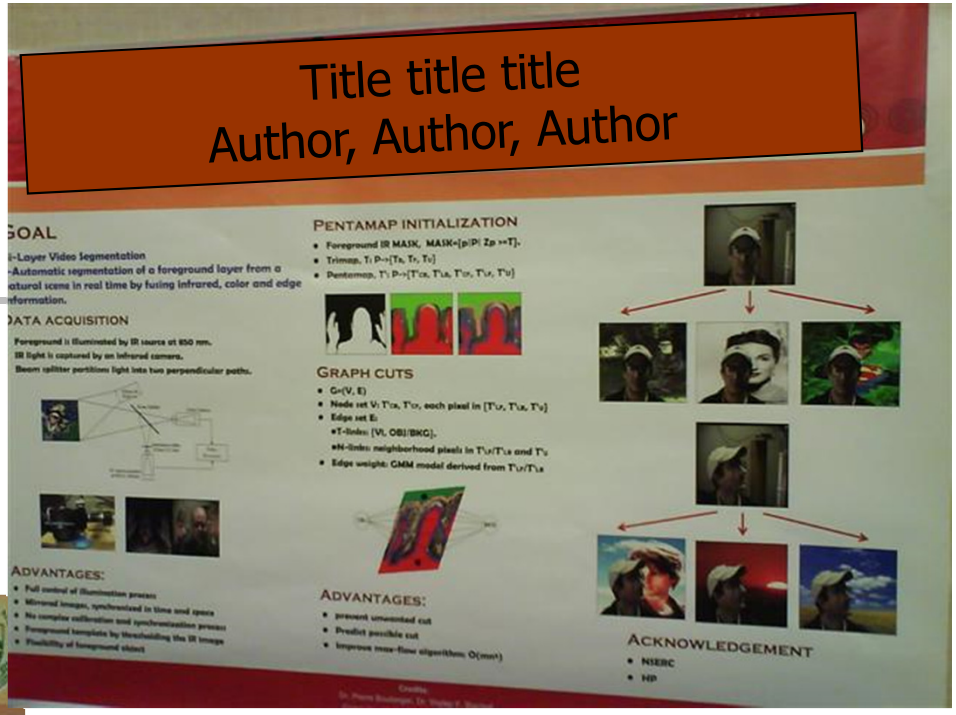
Which would you rather see: I?

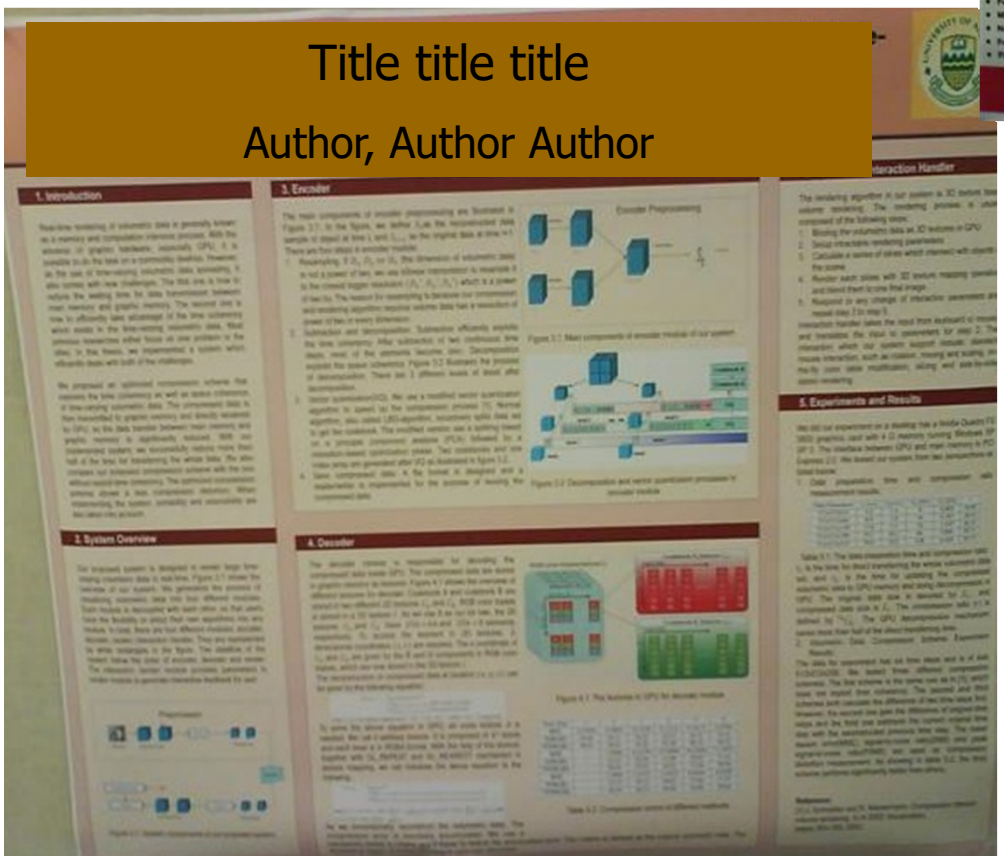


Which would you rather see: II?



Which would you rather see?



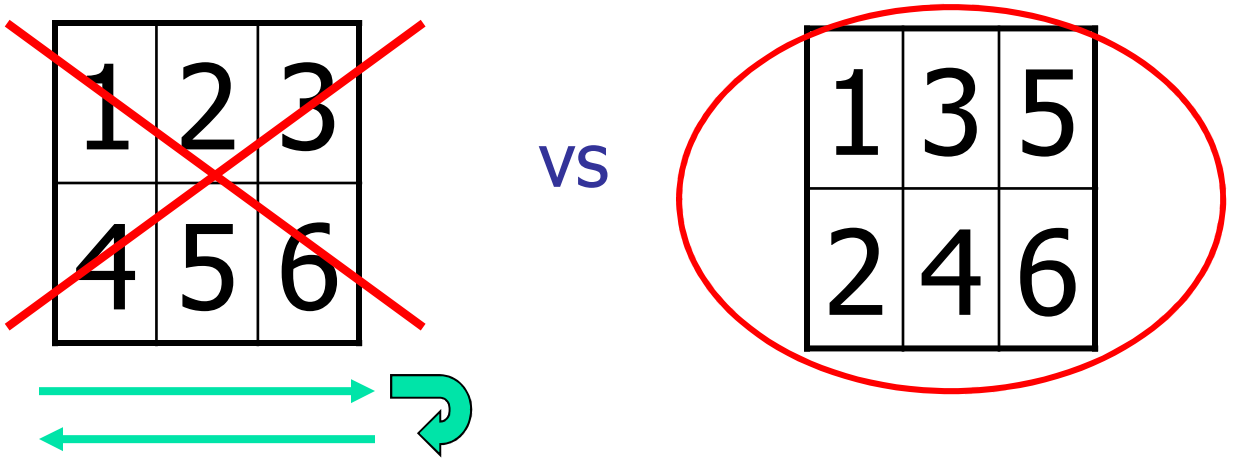


Think of Poster ≈ Presentation…

- Use line breaks to help readers parse sentences
- Avoid "Figure 1" or "Table 3"
  - unless you *need* to refer to a figure/table
  - Typically NOT needed – just use proximity, or arrows
- Use just PHRASES within BULLETs
  - not complete sentences
- Extra words are problematic, as ...
  - If people are reading, they aren't listening!
  - Many words make a poster look crowded, … like it will be hard to understand.

  ⇒ potential viewers will go to another poster ...

Poster Layout ?



- Left-to-right: reader will slide left-to-right, then jump back to the left margin, then slide to the right, then ...
- Especially problematic if many viewers
  - "sliding viewers" will distract others!

Don’t forget …

- Acknowledge your funders!
- How to learn more…
  - get databases? … code?
  - URL? … email address?
  - Bring/distribute business cards (with URL)!
- If general poster:
  … NOT for a single specific venue
  - give citations to where these results appeared

Effective Poster: Presentation

- RIGHT-handed $\Rightarrow$ poster on your RIGHT side
  - so you can point to material,
    while facing audience

- As you progress over the poster,
  you will block some viewers
  - unavoidable... just try to minimize it.

Return

Getting / Maintaining Viewers

- Have 30sec "pitch" – to lure people in
  - Or actually:
    so they know whether to view, or go on

- Devote your attention to current viewer(s)
  - If others arrive during presentation,
    interrupt to say
    "I will restart in *X* minutes"