Methodology and Tools for Research:

# Writing scientific material

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# Objectives of this course

- Writing scientific papers
- Writing other documents: research reports, posters, presentations

- Ressources for the course

  http://www.scoop.it/t/toolsandmethodologyforresearch

# Preliminary remarks

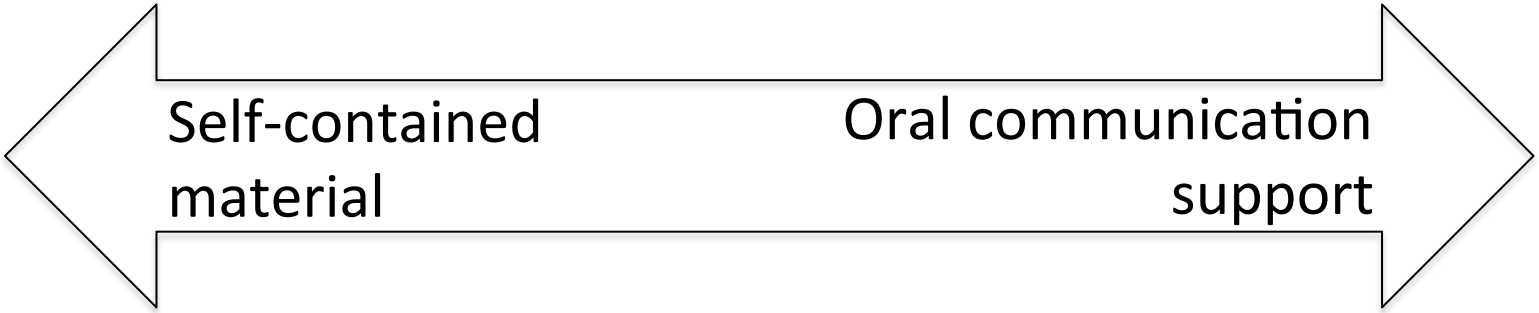
- Lots of advice can be found on the Web
- Often not exactly the same
  - depend on communities
- Often “common sense” advice: it is all about coherence and about your reader
  - common sense sometimes important to be remembered

# What is written scientific material for?

To convey one's **ideas** to a **dedicated public**

**Articles** **Presentations**

**Posters**



# Outline

- **Where should I publish?**
- Papers
- Posters
- Presentations

# Identify the idea you want to communicate

- New ways of looking at things (model)
- New way of manipulating objects (technique)
- New facts concerning objects (results)
- *etc.*

# Honestly assess the quality of your work

- How good and important are your results?
- Why so?

- Differences between
  - Preliminary ideas on a new topic
  - First experimental results
    - e.g. from a master's thesis
  - Summary of a 3-year research project

# Identify the relevant scientific (sub-)community

- What do they already know on the topic?
- Why would they read the paper?
- How will they read it?

- Focus both (O. Goldreich)
  - on experts scientists
  - on their future and current graduate students
    - → write for the good student

# Choose the appropriate medium

- Workshop
- Average or top conference
- Average or top journal
- (Poster)

- Think long term
  - Defend the ideas that deserve it by making them progress and be better publisher

# Write according to the publication target

- Identify the format of the conference / journal
  - One or two columns?
  - Number of pages?
  - Word/Latex model?
- Identify the “style of writing” of the target
  - Experimental papers?
  - Place of related works?
  - Auto-references?
  - Average number of references?

→ Read published papers to get into the mood

# Outline

- Where should I publish?
- **Papers**
- Posters
- Presentations

# So, what's in an article?

- Here is a problem
- It is an interesting problem
- It has not yet be solved
  - Or not as good as I do
- This is my idea
- This is a working idea
- This is how it compares to others approaches

# Conveying the idea to the target

- Presentation need to be clear
  - It is your duty to help readers extract relevant information from your paper
- Intuition is essential
  - A reader who catches the intuition will be willing to read the details
    - NOT the other way around
  - A reader can benefit from the article even if she does not read the details

# Reminder: What's in a paper?

- Title
- Author(s)
- Abstract
- Keywords
- Introduction
- Body
- Conclusion and future work
- References

# Companion reading

- Choose and open one article
  - From the PC assigment
  - From the case study assigment
- Keep an eye on it/them while the course unfolds
  - look for the various elements

# Title

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- The most important sentence of the article
  - This is ONLY from the title that someone will decide to read the abstract
- No more than 4 ideas in it, no more than 2 lines of text
- Careful not to promise too much
  - Deceived reviewers can be bad
- Can contain a joke
  - Check the community

# Author(s)

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Who is an author?
  - Who wrote? What amount of the paper?
  - Who did the work? What kind of work? Was it important?
  - Who participated? Head of the team/lab, technician, reviewer, provider of some code?
- What is the order?
  - Alphabetical order or “importance” order
  - Different domains, different practices
- Who decides?
  - Everybody: not easy
  - The boss: easiest
- Careful with institution names

# Abstract



- Self-contained, high-level description of the paper
  - Often maximal length
- Reading the abstract can lead to getting the whole paper, or not.
  - Write it carefully at the end
  - Have it checked
- No surprise effect
  - “results are presented”

# Abstract:
# Four sentences proposal by Kent Beck

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- The first states the problem.
- The second states why the problem is a problem.
- The third is my startling sentence (positive affirmation = main result)
- The fourth states the implication of my startling sentence

*The rejection rate for OOPSLA papers in near 90%. Most papers are rejected not because of a lack of good ideas, but because they are poorly structured. Following four simple steps in writing a paper will dramatically increase your chances of acceptance. If everyone followed these steps, the amount of communication in the object community would increase, improving the rate of progress.*

http://plg.uwaterloo.ca/~migod/research/beckOOPSLA.html

# Nature's Authors Guide

Title

Authors

Abstract

Key-words

Intro

Body

Conclusion

Refs

## How to construct a *Nature* summary paragraph

Annotated example taken from *Nature* **435,** 114–118 (5 May 2005).

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words "**here we show**" or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context.**

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline, may be included in the first paragraph if the editor considers that the accessibility of the paper is significantly enhanced by their inclusion. Under these circumstances, the length of the paragraph can be up to 300 words. (This example is 190 words without the final section, and 250 words with it).

During cell division, mitotic spindles are assembled by microtubule-based motor proteins[1,2]. The bipolar organization of spindles is essential for proper segregation of chromosomes, and requires plus-end-directed homotetrameric motor proteins of the widely conserved kinesin-5 (BimC) family[3]. Hypotheses for bipolar spindle formation include the 'push–pull mitotic muscle' model, in which kinesin-5 and opposing motor proteins act between overlapping microtubules[2,4,5]. However, the precise roles of kinesin-5 during this process are unknown. Here we show that the vertebrate kinesin-5 Eg5 drives the sliding of microtubules depending on their relative orientation. We found in controlled *in vitro* assays that Eg5 has the remarkable capability of simultaneously moving at ~20 nm $s^{-1}$ towards the plus-ends of each of the two microtubules it crosslinks. For anti-parallel microtubules, this results in relative sliding at ~40 nm $s^{-1}$, comparable to spindle pole separation rates *in vivo*[6]. Furthermore, we found that Eg5 can tether microtubule plus-ends, suggesting an additional microtubule-binding mode for Eg5. Our results demonstrate how members of the kinesin-5 family are likely to function in mitosis, pushing apart interpolar microtubules as well as recruiting microtubules into bundles that are subsequently polarized by relative sliding. We anticipate our assay to be a starting point for more sophisticated *in vitro* models of mitotic spindles. For example, the individual and combined action of multiple mitotic motors could be tested, including minus-end-directed motors opposing Eg5 motility. Furthermore, Eg5 inhibition is a major target of anti-cancer drug development, and a well-defined and quantitative assay for motor function will be relevant for such developments.

# Keywords



- Choose them carefully
  - Think about the audience
  - Think about indexing robots
- Top journals / conferences have thesaurii
  - ACM Computing Classification system

    http://dl.acm.org/ccs.cfm

# Introduction

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Gives the reader the will to read the remainder
- Presents
  - the problem, its context and motivation
    - connecting the current study to the central notions and questions of the relevant area
    - some related work if needed
    - a first concrete example that can be reused later
  - the contributions
    - clearly stated: this is not a police novel
    - refutable (next slide)
  - their consequences
    - e.g. new questions that arise
  - the plan or the article (not mandatory)
- The rest of the article will substantiate the claims

# Introduction: Refutable and clear contributions (S. Peyton Jones)



| NO | YES |
|---|---|
| We describe the WizWoz system, it is cool. | We give the syntax and semantics of a language that supports concurrent processes (Section 3). Its innovative features are... |
| We study its properties | We prove that the type system is sound, and that type checking is decidable (Section 4) |
| We have used WizWoz in practice | We have built a GUI toolkit in WizWoz, and used it to implement a text editor (Section 5). The result is half the length of the Java version. |

http://research.microsoft.com/en-us/um/people/simonpj/papers/giving-a-talk/writing-a-paper-slides.pdf

# Body:
# "flesh" of the paper

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Substantiate the claims of the introduction
  - Precise definitions, contributions, results, discussion, related works, etc.
- Important rule: convey the idea then provide the details
  - do not go for the general case straight away, use an example case first
  - S. Peyton Jones:
    - Explain it as if you were speaking to someone using a whiteboard
    - Conveying the intuition is primary, not secondary
    - Once your reader has the intuition, she can follow the details
    - Even if she skips the details, she still takes away something valuable

# Body: Background, definitions, theorems and demonstrations

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Background
  - precise notations, vocabulary, technical context
- Definitions
  - Not too long, precise
  - Illustrated
    - Use a running example
  - Discuss your definitional choices (the decisions you have made)
    - arbitrary, simplifying or essential
- Theorems and demonstrations
  - Use lemmas if necessary
  - Too long proofs can go to appendices if not that important

# Body:
# Related work



- Placement: byzantine argument
  - At the beginning
    - Allows to present a context, concepts from which to build
    - Can darken the reasoning before it begins
  - At the end
    - Allows best to understand in what way the contribution differs from the state of the art
    - Could force to repeat things already said
- Adapt the related work section to your target
  - What do they know already? What is trivial and what is not?

# Body:
# Related work (cont): S. Peyton Jones



- Credits is not like money
  - Giving credits to others does not diminish the credits you get from your paper
    - Warmly acknowledge people who have helped you
    - Be generous to the competition. “In his inspiring paper [Foo98] Foogle shows.... We develop his foundation in the following ways...”
    - Acknowledge weaknesses in your approach
- Failing to give credits can kill your paper
  - If you imply that an idea is yours, and the referee knows it is not, then either
    - You don’t know that it’s an old idea (bad)
    - You do know, but are pretending it’s yours (very bad)

# Body:
# Figures and tables

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Figures
  - Clear, B&W (print) and color (PDF) readability
  - Graphical coherence
  - Clear, informative captioning
  - Systematically cited in the text
- Figures related to experimental data
  - Choose the appropriate type (box-plot, histogram, etc.)
  - Careful with axes, points, legends
  - You should be able to write “one can see from figure X”
    → it’d better be true!
- Tables
  - Clarity, citations in the text, etc.

# Body:
# Presenting experimental work

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Hypotheses
- Settings
  - Clear description of experimental protocol
  - Should reproducible
  - No results except calibration results
- Results
  - Use statistical significance and correctness
  - Use text, tables, figures
  - Do NOT discuss implications of the results here

# Body:
# Presenting experimental work (cont)

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Discussion is about implications of the results
  - Interpretation of the results, w.r.t. what was already known
    - "This is coherent with the results of…"
    - "This contrasts with previous results…"
      - May lead to new explanation, new comprehension of the domain (or problem with method)
      - "Results suggest that…"
  - Do NOT present new results here
- A discussion is present in most papers
  - Implications of the contributions
  - Weaknesses of the approach

# Conclusion

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs

- Not really necessary in some cases
- Summarize of the article
  - wrap up important ideas and results
  - can be redundant with introduction if no new points
- Present future work
  - new hypotheses, (real) open problems
  - can be redundant with discussion section
  - careful not to let the reader think that the work you presented is unfinished
    - …then insufficient for publication

# References



- Within the text: many styles
  - [1]
  - [Aubert et al. 2012]
  - (Aubert et al. 2012)
    - As Aubert et al. (2012) proposed…
- In the reference section: many styles
  - depends on disciplines: APA, AMS, etc.
- Chek your references
  - No, it's not bibtex fault if journal pages are missing
- Do not forget to cite
  - Articles from the journal / conference
  - Articles from likely referees

# Acknowledgments


- At the beginning (footnote on the first page)
  - Mainly funding information
    - "This work was made possible by the ERC grant N°1234 from Author 2 and the French ANR project BIDULE"
- At the end (before references)
  - Funding information; colleagues who participated, but are not authors; inspiring people; persons who participated to an experiment…
- Careful
  - Institution and people will check
- There is room to thank a lot of people, do not hesitate
- Truth and kindness
  - Nether mislead the reader
  - Kindness never hurts.

# Appendix

Title
Authors
Abstract
Key-words
Intro
Body
Conclusion
Refs
Appen-dix

- No appendix if possible
- Use if it helps to focus on text readability
  - Source code, demonstrations, additional settings information, rough data, secondary table/figures, screenshots, etc.
  - Reading appendices should not be necessary to understanding the article

# Advice 1:
# Remember pass1 for reading a paper

- Title + authors
  - What is it about + Where does it come from?
- Abstract
  - What was done, what is the contribution?
- Medium
  - What is the audience?
- Introduction / conclusion
  - What is the context + what are the results?
- (Sub-)sections headings, figures, formulas
  - What is the paper general structure, contribution?
- References
  - Is it a serious paper?

Category
Context
Correctness
Contributions
Clarity

→ write so that any reader can answer these questions within 5 minutes

→ write the most important parts at the end (abstract, introduction)

# Advice 2:
# Outline important ideas / message

- Write with honesty
  - … but remember you have to be convincing
- Repeat important information
  - Title, abstract, introduction, discussion
- Place it where it will be recognised as such
  - Section/subsection titles
  - End/beginning of sections
  - Short paragraphs

- Be careful with the section/subsections titles
  - Informative enough to reveal the article structure

# Advice 3:
# Be careful with language

- Systematically use a spell-checker
- Get inspiration from sentences found in good articles
- Read books
  - *The elements of style* (Strunk 1918)
    - http://www.crockford.com/wrrrld/style.html
- Take lessons of scientific english
- Wisely use punctuation
- He? She? She-he?
  - Copy on accepted articles

# Advice 3:
# Be careful with language

- Keep a clear, concise, simple and direct language
  - something equivocal is deemed false
- No sentences with complex logical structure
  - particularly if you are no sure
- Banish labyrinths of indirections with implicit pointers (it, this)
  - prefer repetitions
- No acronyms
  - unless well known
- No cumbersome notations

  $(a, b, c, d, e, f, g, h, i, j)$-system

  $M^{O_b^c}_{i_{j,k_t}}$
- Careful with mixtures of mathematical symbols and text

# Advice 3:
# Be careful with language (cont)

- Focus on the subject and the public target
- Be careful with expressions that defy the reader
  - “Never, always”
  - “Clearly demonstrate”
  - “Unambiguous”
  - “It is obvious”
  - “Very”
- Use dynamic verbs
  - “We performed the measurement of” → “we measured”
  - Use active voice (next slide)

# Advice 3:
# Be careful with language: use active voice

| NO | YES |
|---|---|
| It can be seen that… | We can see that |
| It might be thought that this would be a type error | You might think this would be a type error |
| These properties were thought desira ble | We wanted to retain these properties |
| 34 tests were run | We ran 34 tests |

(S. Peyton Jones)

# Advice 3:
# Be careful with language: use simple, direct langage

| NO | YES |
|---|---|
| The object under study was displaced horizontally | The ball moved sideways |
| On an annual basis | Yearly |
| Endeavour to ascertain | Find out |
| It could be considered that the speed of storage reclamation left something to be desired | The garbage collector was really slow |

(S. Peyton Jones)

# Advice 4:
# Reinforce the visual structure of the paper

- Use enumerations and lists
- Use figures, tables and take care of their position
- Wisely use sections, sub-sections, sub-sub-sections, paragraphs
- *Emphasize*, **do not use bold fonts in the text**
- Use dedicated style for source code and algorithms

# Advice 5:
# Use the right tools for writing

- A writing tool is very important
  - Tool, text and ideas are not as separated as one believes
- Preparation / structure
  - Outliners, mind maps
- Writing
  - Word processor
    - WYSIWYG, Latex
  - General drawing tools
    - Visio, Inkscape, Omnigraffle
  - Dedicated drawing tools
    - Rstats
  - References management
    - Zotero, EndNote
- Versioning tools
- Collaborative features

# Advice 6:
# Start early

- Papers and idea need time to mature
- Best papers have had a first version weeks before the deadline
  - papers should be reviewed: advisor, colleagues, etc.
  - too many conference papers are finished 10 minutes before deadline
  - difference being accepted and rejected paper can just be one or two cycles of reading / re-writing

# Remark 7:
# Get help

- Find people to read the paper
  - Experts and non-experts
  - Only one first reading per reader!
- Get useful reviews
  - not just grammar/spelling → understanding problems are better
- Really listen to the reviews and give attention to each point
  - If somebody had a remark, you may not necessarily follow her suggestion, but acknowledge that a problem has been spotted
- Thank the reviewers warmly

# Advice 8: Take into account conference/journal reviewers comments

- There is always something to improve from reviewers' comments
  - Get over the form, even if very negative
  - Incomprehension may not mean that the reviewer is dumb
- For a journal
  - Send a letter that explains every modification to the reviewers
- For a conference with rebuttal
  - Explain how you will take into account the reviewers comments should the paper be accepted

# Additional advice (Goldreich 2004)

- Focus on the reader's needs rather than on the writer's desires.
- Careful with
  - checklist phenomenon
  - obscure generality
  - idiosyncrasies
  - lack of hierarchy/structure
  - "Talmud-ism"

# Additional advice (Goldreich 2004)

- Awareness of the knowledge level of the reader
  - Definition: the reader will not understand everything at first read
  - Proofs: focus on conceptual steps before technical ones
  - Ideas: do not begin with the general case, rather with special case
  - Difficulty should not be hidden, but discussed
  - New concepts: not too much

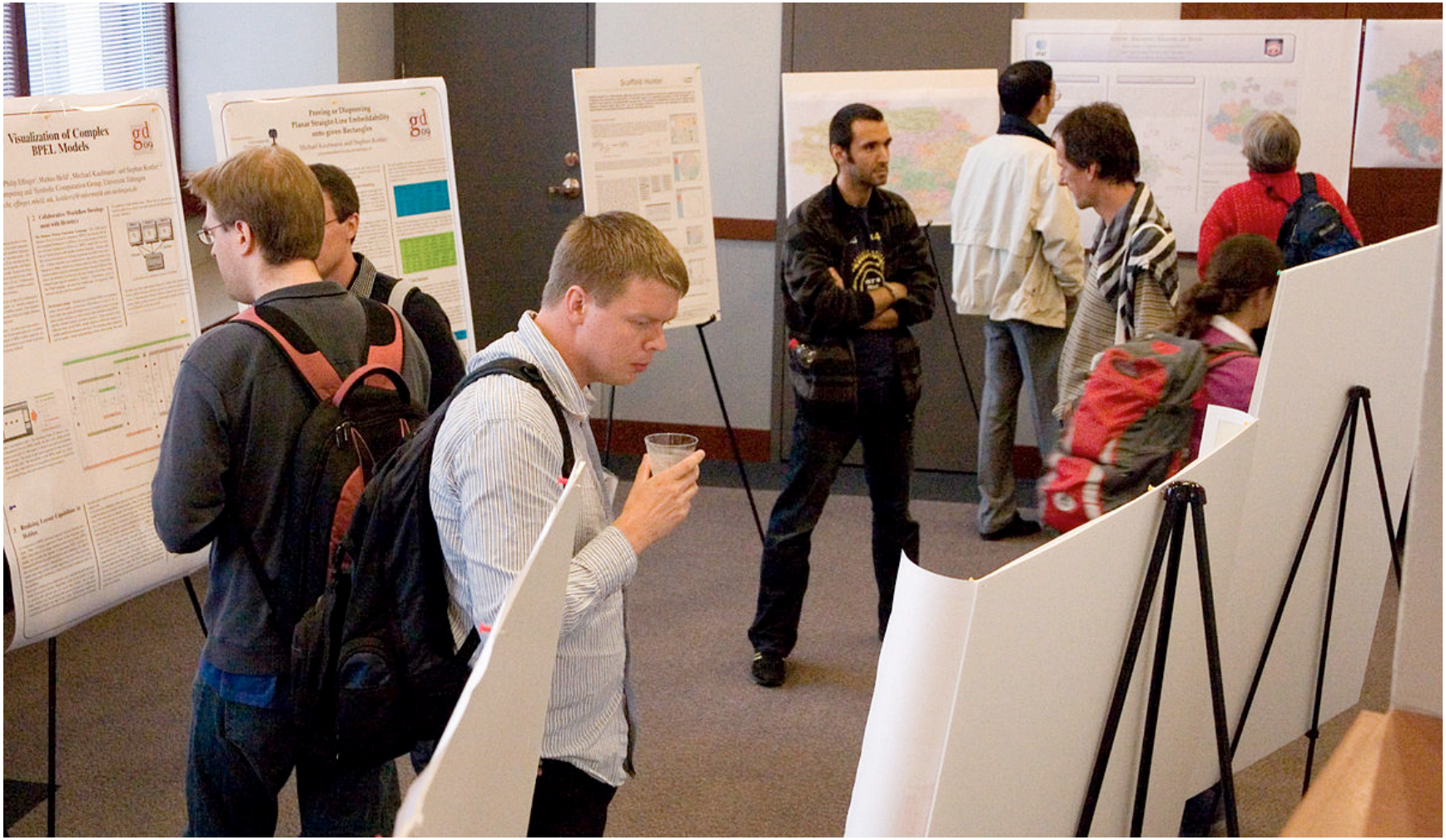
# Outline

- Where should I publish?
- Papers
- **Posters**
- Presentations

# What is a conference poster for?

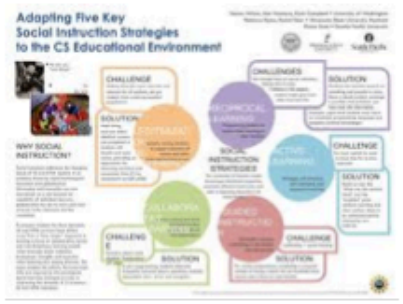
- Helping communicate ideas to people who choose to spend 5 minutes with you
  - Small audiences (1-5 persons)
- Communicating these ideas on its own
  - A reader should be able to grasp the content by reading it from introduction to conclusion
- Both
  - After all, you will not be present all the time next to your poster
  - Most posters finish their lives hanging on labs' corridor walls

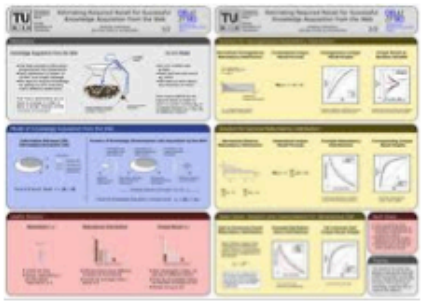
# What the situation looks like (small venue)

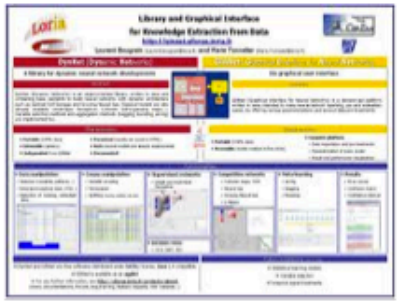


# What the situation looks like (larger venue)

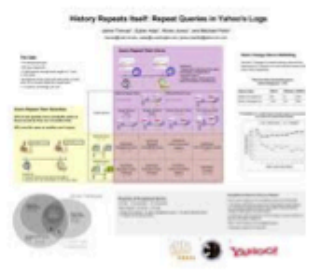
# Computer science posters

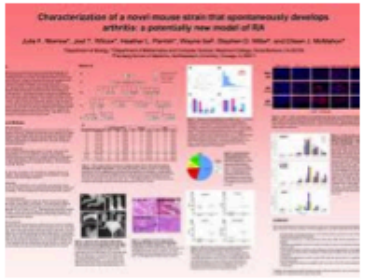



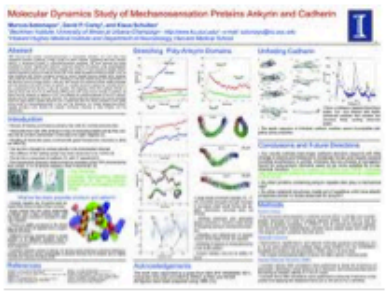


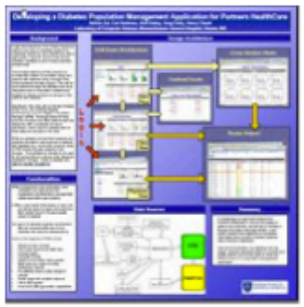


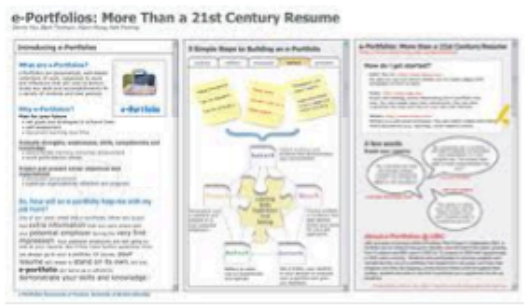


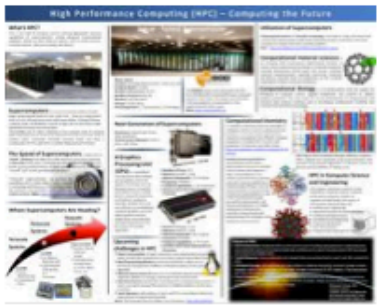


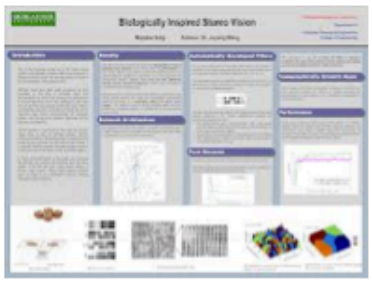


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# Contents

- Short title
- Introduction
  - necessary concept / references
- Overview of the approach
- Results in graphical form
- Insightful discussion of results
- References
  - not too much
- Brief acknowledgement
  - assistance and financial support

# Bad Posters example

- see http://colinpurrington.com/2012/example-of-bad-scientific-poster/
- or https://www.google.fr/search?q=bad+poster&tbm=isch

# Use the right tools

- Text design tools
  - Quark Xpress, In Design, Scribus (open source)
- Drawing tools
  - Illustrator, Omnigraffle (mac), Inkscape (SVG editor)
- (Latex)
- (powerpoint)

# Some tips

- Length
  - 800 words max: under 5 minutes to read the whole content
- Illustrations
  - careful with the photo / image quality for printing (pixelisation)
- Fonts
  - non-serif font (e.g., Helvetica) for title and headings
  - serif font (e.g., Palatino) for body text.
- Text boxes
  - width: approximately 40 characters (av.11 words per line)
  - no longer than 10 sentences
- Logos
  - Avoid them
  - If not possible, hide them

# Ask yourself one question

- Will I proudly stay next to my poster at the conference?
  - Does it contain every information I would need?
  - Is it attractive enough?
  - Is it clear enough?
  - Are there any typos?
    - (well, answer is always yes)
  - …

# Outline

- Where should I publish?
- Papers
- Posters
- **Presentations**

# Presenting a paper at a conference

- Various situations
  - 10 to 1000 attendants
  - one or several sessions
  - 15 to 30 minutes (with questions)
- The occasion get interest from people in the room
  - Getting them to read the paper, to have students read the paper, to tweet about it
  - The presentation may be recorded and broadcasted

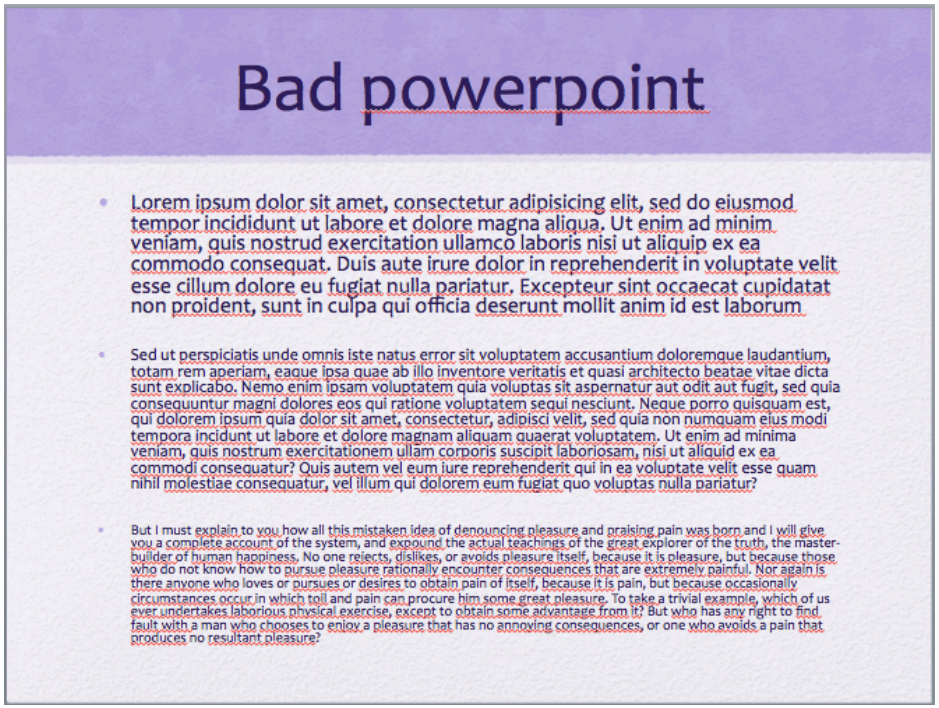
# Visual aids for presentations

| Type | Pros | Cons |
|---|---|---|
| Projected slides | Images, underline key details | Can be boring<br>Unefficient if too much details |
| White or black board | Mathematical demonstration | Not facing audience, slow, needs erasing |
| Videos | Stimulate imagination, movements, sounds | Audience focused the video<br>Need short video, good quality prepared discourse |
| Demos | Get public interest | Can fail → rehearse/test<br>Careful with idle times |
| Artefacts or props | Get public interest | Audience can get distracted |
| Paper handouts | Audience leaves with the written message | Audience can get distracted |

http://libweb.surrey.ac.uk/library/skills/Presentation%20Skills%20Leicester/page_57.htm

# Titles give the slide message (one sentence)

- Titles are substantived with
  - visual (image, figure) and
  - textual content (not too much)



# What is bad for a poster is bad for slides

- TITLE SHOULD NOT BE IN CAPITAL LETTERS
- Use no more than 4 items per list
- Do not provide too much details
- Text should be readable from a distance
- The whole content of the paper should not be in the slides
- Use white space to visually arrange the slide and the reading order
- Use well designed figures
- Use images for outline slides
- …
- Use animation if it supports the discourse

# Some mistakes while presenting

ANYTHING THAT CAN GO WRONG, WILL GO WRONG

- Forget Murphy's law
  - Rehearse, rehearse
  - Arrive early
- Miss the audience
  - Will the audience understand this point?
  - Will the audience get interest for this point?
- Be inattentive to the audience
  - Not speak loud enough
  - Move without a goal
  - Read the slides
  - Have no eye contact with all the audience
  - Have no idea of elapsed time
  - Do not listen to questions, do not reformulate

# Checklist for Scientific Presentations
## (not every item on this list applies to every presentation)

| **Speech** | |
|---|---|
| Necessary information conveyed?<br>Audience targeted?<br>Terms defined? | Assertions supported?<br>Tone controlled?<br>Examples given? |
| **Structure** | |
| *Organization of Beginning*<br>Scope defined?<br>Topic justified?<br>Proper background given?<br>Talk memorably mapped?<br>*Organization of Middle*<br>Divisions of middle logical?<br>Arguments methodically made?<br>*Organization of Conclusion*<br>Main points summarized? Closure achieved? | *Transitions*<br>Beginning/middle?<br>Between main points of middle?<br>Middle/ending?<br><br>*Emphasis*<br>Repetition used effectively?<br>Placement used effectively? |

http://www.globalspec.com/reference/42327/203279/appendix-a-checklist-for-scientific-presentations

# Checklist for Scientific Presentations
## (not every item on this list applies to every presentation)

| **Presentation Slides** | |
|---|---|
| Slides orient the audience?<br>Slides are clear to read?<br>Slides have proper level of detail? | Slides show key images?<br>Slides show key results?<br>Slides show talk's organization? |
| **Delivery** | |
| Speaker controls nervousness?<br>Speaker shows energy?<br>Speaker exudes confidence?<br>Voice engages?<br>Speed is appropriate?<br>Filler phrases ("uh") are avoided? | Eye contact made?<br>Movements contribute?<br>Equipment handled smoothly?<br>Questions handled convincingly?<br>Questions handled succinctly? |

http://www.globalspec.com/reference/42327/203279/appendix-a-checklist-for-scientific-presentations

# Ten commandments for (really bad) conference talk

1. **Thou shalt not be neat**
   - Why waste research time preparing slides? Ignore spelling, grammar and legibility. Who cares what 50 people think?
2. **Thou shalt not waste space**
   - Transparencies are expensive. If you can save five slides in each of four talks per year, you save $7.00/year!
3. **Thou shalt not covet brevity**
   - Do you want to continue the stereotype that engineers can't write? Always use complete sentences, never just key words. If possible, use whole paragraphs and read every word.
4. **Thou shalt cover thy naked slides**
   - You need the suspense! Overlays are too flashy.
5. **Thou shalt not write large**
   - Be humble -- use a small font. Important people sit in front. Who cares about the riffraff?

http://www.cs.wisc.edu/~markhill/conference-talk.html

# Ten commandments for (really bad) conference talk

6. **Thou shalt not use color**
   - Flagrant use of color indicates uncareful research. It's also unfair to emphasize some words over others.
7. **Thou shalt not illustrate**
   - Confucius says ``A picture = 10K words,'' but Dijkstra says ``Pictures are for weak minds.'' Who are you going to believe? Wisdom from the ages or the person who first counted goto's?
8. **Thou shalt not make eye contact**
   - You should avert eyes to show respect. Blocking screen can also add mystery.
9. **Thou shalt not skip slides in a long talk**
   - You prepared the slides; people came for your whole talk; so just talk faster. Skip your summary and conclusions if necessary.
10. **Thou shalt not practice**
    - Why waste research time practicing a talk? It could take several hours out of your two years of research. How can you appear spontaneous if you practice? If you do practice, argue with any suggestions you get and make sure your talk is longer than the time you have to present it.
    - This commandment is the most important. Even if you break the other nine, this one can save you.

http://www.cs.wisc.edu/~markhill/conference-talk.html

# Outline

- Where should I publish?
- Papers
- Posters
- Presentations
- **Conclusion**

# Writing rules: simple, (quite) obvious, numerous

- Mastering only comes with practice
  - reading and writing
- As for any design rules
  - Apply them, for they are accumulated wisdom
  - Understand them theoretically *and* practically
  - Develop your own style
  - Always remember not to stick to rules blindly
    - be flexible, apply good principles to the case at hand