

Writing and Technical Presentations – October 2023

- Please watch this video on writing:
 - [“How to Write a Great Research Paper”](#) by Simon Peyton Jones, Microsoft Research:
Summary:
 1. *Don't wait: write*
 2. *Identify your key idea*
 3. *Tell a story*
 4. *Nail your ideas to the mast*
 5. *Related work: later*
 6. *Put your readers first*
 7. *Listen to your readers*
- Ethical guidelines
 - What are the ethical guidelines?
 - Make sure you know what the following are:
 - Double submission, plagiarism, self-plagiarism, conflict-of-interest.
 - Responsible conduct of research training at BU
 - Please check out [workshops and online trainings](#).
- Writing Technical Articles
 - Please read through both links in detail:
 1. <http://www.cs.columbia.edu/~hgs/etc/writing-style.html>
 2. <http://www.arl.wustl.edu/~pcrowley/cse/591/writingResearchPapers.pdf>
 - Another recommended site on writing:
<https://www.springer.com/gp/authors-editors/authorandreviewertutorials/>
Please do the tutorials on **journal writing** and **writing in English** in the Springer site. Keep in mind there may be some differences of practice based on the specific area you are working on (compared to the style followed in the examples). If you have any questions, please discuss with your advisor.
 - What a good “introduction” should tell:
 - What is the problem the paper is solving?
 - Why it is an important problem? (“Who cares?”)
 - What was done about the problem and what are significant gaps?
 - What is this paper doing about the gaps? What is the key novelty?
 - Contributions (typically 2-3)
 - **Exercise:**
 - Summarize a paper (or a section of a paper) in a single paragraph. Maintain the most important message and make sure the text is clear.
 - What is the single key contribution of the paper?
 - How long is a paragraph ideally? Minimum 2-3 sentences? Maximum? Max. 5 sentences x 5 words?

- Further thoughts:
 - This is a fantastic, well-written article about writing. It is targeting journalism students, but there are still lots of lessons to learn:
 - <https://theamericanscholar.org/writing-english-as-a-second-language/>
 - Four principles: Clarity, Simplicity, Brevity, and Humanity.
 - How about using ChatGPT? Discussion.

- Writing Rules
 - [This document](#) covers common mistakes, preferred writing styles, etc. (prepared by/for PeacLab).
 - Have a “writing rules” document (personal, your lab’s, or use the above). Make sure to check often while writing a paper.
 - Use tools (Grammarly, others) to check grammar and syntax.

- **Technical Presentations** (*more on this later in the semester*)
 - Format (fonts, background, page numbers)
 - Figures:
 - All figures should **always** have clear axis labels and legends, readable fonts, and should be as self-explanatory as possible.
 - Tables:
 - Use highlight boxes.
 - Show part of the most important result (so that it is easily understandable to the audience), put the full table in backup.
 - Slide content
 - Slide title should be descriptive (not just “Results”).
 - Your most important message could be the title or at least it should be on top somewhere.
 - Speaker notes vs. slides:
 - Slides are for the audience, not for the speaker to remember what to say.
 - Too much text causes “cognitive overload”.
 - “Picture superiority”: the audience is 2x more likely to remember a visual image.
 - Cognitive overload is the guaranteed way for your audience to fall asleep.
 - Learning is based on identifying “relationships”:
 - Bulletpoints and images with no connection versus a plot with connecting arrows, markers, etc.
 - Communicate a relationship with your visual.
 - **Every slide should do something for you that words cannot.**
 - Make sure to insert slide numbers!
 - Telling a story
 - First few minutes of your talk is your “abstract”. You either win or lose the audience. Recall what makes a good introduction in a paper:
 - What is the problem?
 - Why is this an important problem?

- What did you do about it?
 - Key novelty/contribution; key (quantified) outcome.
 - Slide 2: Outline – DON'T DO THIS!
 - Conclusion slide:
 - This is what people will be looking at for 5 minutes during Q&A.
 - Do you want them to look at a funny icon and/or text that says “Thanks!” or “Questions?”?
 - Make a useful, brief, visually appealing summary slide instead.
- Posture, gestures, and speech delivery
 - LOOK at the audience (but really!)
 - Observe good speakers.
 - What do they do (and not do)? How do they move their body and hands while speaking? Do they point their laser pointer to the audience’s eye? Do they keep their hands in pockets all the time?
 - Who is your favorite speaker? Identify one if you don’t have one.
 - **Practice!**
 - Tip: reducing your accent is not easy, but avoiding words you have a problem with (i.e., rephrasing the words/phrases you always forget, mispronounce, etc.) is possible.