Final Submissions & Writing

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Final Submissions

- **Due April 26, class time. Each group**
  - **15-minute talk**
  - **Paper formatted like ones we read. 10-page limit, two column**
  - **All source code and documentation for your project**

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The Paper

- **Abstract**
- **Introduction:** Motivate, summarize, preview
- **Related Work:** shoulders of giants
- **Methodology/Design**
- **Implementation**
- **Experiments/Results**
- **Conclusion**
- **Future Work:** Future work is earned

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1: Tell me a story

- **what is "elevator pitch" of your story?**

  elevator pitch = summary that is short enough
  to give during an elevator ride

- ☐ Story *not* what you did, but
  - ❖ what you show, new ideas, new insights
  - ❖ why interesting, important?
- ☐ why is story interesting to others?
  - ❖ Big takeaways, hot topic, unexpected results?
- ☐ Know your story!

2. Write top down

- **Human beings think top down!**
- **state broad themes/ideas first, then detail**
  - **Examples?**
  - **Intro summarizes/previews paper sections**
  - **First 2 sentences of paragraph summarizes entire paragraph. Rest of para is details**

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3 Introduction: crucial, formulaic

- **Reader not excited by intro? loses interest**
- **Recipe:**
  - **para. 1: motivation: broadly, what is problem area, why important?**
  - **para. 2: narrow down: what is problem you specifically consider**
  - **para. 3: "In the paper, we ….": most crucial paragraph, tell your elevator pitch**
  - **para. 4: how different/better/relates to other work**
  - **para. 5: "The remainder of this paper is structured as follows"**

4. Master organized writing

- **paragraph = ordered, related sentences**
- **lead sentence**
  - sets context for paragraph
  - might tie to previous paragraph
- **sentences in paragraph should have logical narrative flow**

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5. Put yourself in reader's shoes

- **less is more:** *take the time to write less*
- **readers shouldn't have to work**
  - won't "dig" to get story, understand context, results
  - Embed signposts saying where 'story" is going, where we are
    - good: "e.g., Having seen that … let us next develop a model for …. Let Z be …."
    - bad: "Let Z be"
- **write for reader, not for yourself**
  - what does reader know/not know, want/not want?

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5. Put yourself in reader's shoes

- **page upon page of dense text is *no fun* to read**
  - – **avoid tiny fonts, small margins**
  - – **create openess with white space: figures, lists**
- **enough context/information for reader**
  - – **no one same background as you**
  - – **no one can read your mind**
  - – **all terms/notation defined?**

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6. No one (not even your mother) is as interested in this topic as you

- **you better be (or appear) interested**
- **Don't force feed the fish (too much stuff)**
- **don't overload reader with 40 graphs:**
  - think about main points to convey with graphs
  - can't graph all variables
- **don't overload reader with pages of equations**
  - put long derivations/proofs in appendix,
  - provide sketch in body of paper

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7. State the results carefully

- **clearly state assumptions (see overstate/understate your results)**

- **Reproducibility:** **experiment/simulation description: enough info to nearly recreate experiment/description**

- **simulation/measurements:**
  - **statistical properties of your results (e.g., confidence intervals)**

- **are results presented representative?**
  - **or just a corner case that makes the point you want to make**

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8. Don't overstate/understate your results

- **overstatement mistake:**
  - "We show that X is prevalent in the Internet"
  - "We show that X is better than Y"

  when only actually shown for one/small/limited cases
- **understatement mistake: fail to consider broader implications of your work**
  - if your result is small, interest will be small
  - "rock the world"

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9. Study the art of writing

- **writing well gives you an "unfair advantage"**

- ***writing well matters in getting your work published in top venues***

- **highly recommended:**
  - *The Elements of Style,* **W. Strunk, E.B. White, Macmillan Publishing, 1979**
  - *Writing for Computer Science: The Art of Effective Communication,* **Justin Sobel, Springer 1997.**

- **who do *you* think are the best writers in your area: *study their style***

10. Good writing takes times

- **give yourself time to reflect, write, review, refine**

- **give others a chance to review, give feedback**
  - **get a reader's point of view**
  - **find a good writer/editor to critique your writing**

- **starting a paper three days before the deadline, while results are still being generated, is a non-starter**

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References

- **Jim Kurose, 10 tips for Writing papers, CoNEXt Students Workshop 2006**

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