Research Papers: Audience

Who is going to read your paper?
- Why **should** anyone read your paper?
- Perhaps this question should be answered explicitly, and as early as possible.

Any document is written **for an audience**. The audience can have a huge impact on the document, even after deciding the content.

- Students? Industry professionals? Researchers?
- Readers in the field? Out of the field?
Raising Audience Share

The more accessible your paper, the greater your potential audience share.

- Explain terms
- Avoid Jargon
- Use good style
- Even an expert won’t be offended by a little bit of extra explanation (within reason)
- Always pitch a little low
Structure and Organization

Top-down paper design

First step: Explicitly write down a **small** number of contributions, issues, points, etc. that the paper is “about”. This allows you to:
- Write the abstract
- Budget space (do this early!)

If you have a length limit, begin by writing over the limit and then pruning down.

Even if no length limit, keep the document as short as possible
- Need to balance “supporting” the reader with redundancy

Support the skim reader
- Important results should have a visual tag
What is in a Paper?

- Title
- Author/address list
- Date (or version)
- Abstract
- Keyword list
- Body of paper (intro, exposition, conclusions, future work)
- Figures and captions
- Statistics and other presentations of quantitative data
- Lists
- Theorems/proofs
- References
- Acknowledgments
Title

500 people read the title for every one that reads the paper

Goals of the title
- Help someone decide whether to read abstract, or paper (when scanning ToC or reference list)
- Give description of content
- Catch reader’s interest

Title should be specific to the paper
- Test: Could many of your papers use that same title?
- Test: Could that title refer to a paper on a different topic?

REALLY, REALLY avoid passive voice!

Ideally, the title would be an abstract of the paper
Author List

Most papers have multiple authors.

Who gets listed as an author?

What is the order of listing? Lots of possibilities

- Who did the most work? (measured how?)
- Who is most senior?
- Who can “sell” the paper best?
- Alphabetically or randomly?
- Sometimes lab director is last
- Sometimes students are first, or last

Life is unfair. Even if the paper authorship listing is fair, citation and public perception is not.

Warning: Decide on your professional name, and its rendition, and **stick with it!**
- Be sensitive to your co-author’s name rendition. Its not your right to decide.
The Abstract

Purpose: To summarize the contents of the paper. Explicitly, to enable the reader to decide whether to read the whole paper.

- Indicate key conclusions. Mention findings, not just say “analysis was conducted”
- (In a research paper), claim some new result

Warning: Abstract is often read separately from the paper (e.g., abstract service).

- The rest of paper might not be available
- Abstract must stand on its own
- No ability to reference anything in document (figures, citations)
- Avoid equations and other heavy typesetting (might not transfer)
- Make easy to understand by non-native speakers
The Abstract (cont)

Bad: Build abstract from sentences in intro.

Good: Write a one paragraph mini-paper, designed for that purpose

Typically write abstract **after** the paper is essentially complete

Journal paper-style abstracts are typically 200-300 words

Don’t start with “In this paper...”

Note: An “extended abstract” is a different animal. That is really a short paper (say 2-3 pages).