Publishing Your Research

Link to captions

Publishing your research

- Step 1: Do some great research ✔
- Step 2: Write it up into a great paper
- Step 3: Get it published in a top venue

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Writing a great paper

- A great paper conveys several things:
  - Adds to the existing body of knowledge
  - Presents and validates an idea through evidence.
  - Provides influencing perspectives.
  - Connects its contributions to the broader body of knowledge.

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Structure

- Introduction
- Overview
- Method
- Evaluation
- Related work
- Discussion/Conclusion

Writing the Introduction

- An good introduction tells a story.
  - What is the problem
  - Why is important
  - Hint at the idea and its promise
  - (here or later) what are your research questions?
  - Why should one keep reading?
- The introduction is a contract.
  - Do not overgeneralize
  - Separate opinion from facts
  - Do not over promise

What's your idea?

- This may show up throughout the paper (but probably the intro)

- Build intuition
  - Use a running example
  - Favor intuition over precision
  - Examples:
    - What does your algorithm do on a concrete example?
    - What is it like to use your new interface?

Related work

- Sometimes it goes at the end, sometimes it goes in the beginning.
- The context where your work exists
  - What you build upon
  - Different solutions to the same problem
- Choose your research tools
  - Semantic Scholar, arXiv, ACM DL

Method

- What you did. Why.
  - Why this method, algorithm, system, etc.
  - Break it into meaningful components.
  - Make sure the level of detail is appropriate to the audience.
  - Make sure you introduce every term before you use it.
- Peer review happens here

Evaluation / Results / Findings

- The evaluation should connect back to specific research questions

- It should be clear that you went out of your way to try to disprove your hypothesis.

- Separate data and observations from opinions

Evaluation examples

https://www.sigplan.org/Resources/EmpiricalEvaluation/

https://faculty.washington.edu/wobbrock/pubs/Wobbrock-2012.pdf

SIGPLAN evaluation checklist

7 research contributions in HCI

Discussion/Conclusion

- Don't just repeat what you did.
- People don't remember numbers, they remember stories.
- What are the opportunities arising from this work and its results?
- What comes next?

Paper writing advice

Building Publishing Muscle

- Non-Archival Publications
  - Workshop papers
  - Poster Abstracts
  - Doctoral Symposia
  - **ArXiv **

- Archival Publications
  - Full-length Conference and Journal Papers

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Know Your Audience

- Read lots of papers from the target venue

- Attend the venue (if a conference)

- Review for the venue if possible (ask your advisor to recommend you for this)

- Program Committee meetings
  - Senior students may get invited if their advisor pulls strings
  - You may be able to observe as a student volunteer

Make an Outline

- Iterate and agree on the outline with your co-authors before you start writing

- You often have a story beforehand… what are the plot points?

- You don't need to write in the sections in order

Start Early

- The more iterations, the stronger the paper

- Set an internal deadline with your team

- Perfect is the enemy of done

- Leave ample time for advisor and peer feedback, making submissions accessible, creation of video or other supplementary materials
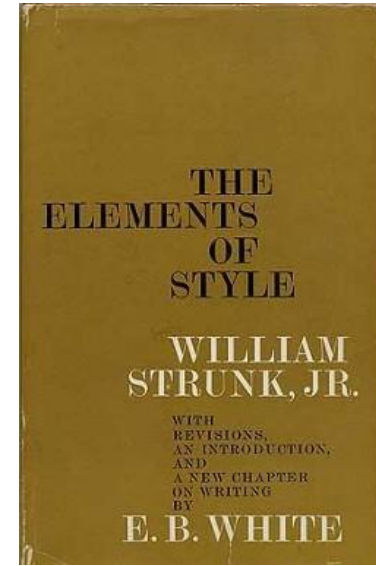
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Leverage Resources

- writing courses at your university

- reference books (Strunk & White)

- professional or pro bono proofreaders
  - Can you or your advisor apply for funding for this type of resource?
  - Free resources often include paper mentoring programs offered by conferences & professional societies

Becoming a good writer

- Read, write, repeat

- Is a practice, not an event.

- Be succinct

- While you get better at it, get help

  - Courses

  - Professional editing services

- AI tools can be helpful, but do not let them take over the writing from you.

Supplementary materials

- Videos, appendices, instruments, datasets
- Presentation that goes with it

Getting a Paper Published

Communicate with Co-Authors

- Agree on deadlines (for outline, drafts of sections, full draft, feedback, etc.)

- Agree on division of labor

- Be explicit about authorship (who & in what order)

Pick a venue

Many factors to consider

- Venue quality

- Topic alignment

- Review pool and process

- Desired publication date

About Deadlines

- What to do if the submission site crashes near the deadline…

- When is it OK to request an extension?

Metadata Matters

- Abstract Pre-Registration

- Keywords = Reviewer Matching

- What name should you publish under?

Rebuttals & Reacting to Reviews

- Sleep on it!

- Get the venom out in a throw-away draft

- What if your scores are very low or high?

- Prioritize reviewers' comments & group by theme

- Pro tip: spreadsheet your rebuttal plan

- Start early, get feedback, iterate

- aka.ms/rebuttals

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Things to Avoid when Writing

- Plagiarism (including self-plagiarism)

- Dual submissions

- All-nighters (start early, iterate often!)

- Complaining about reviews on social media

- Submitting without knowledge of advisor/co-authors

Parting tips & reminders

- Publications stay on your CV forever

- Determine authorship early - be explicit and generous

- Reviews – learn from them and improve your work

- Send a paper because it is ready, not just for feedback

- When doing reviews, imagine the authors reading them.

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Acknowledgments

Thanks to Daniel Jiménez, Merrie Morris, and Nancy Amato for their slides from previous workshops

Questions / Discussion

Discussion topics:

● What are you working on?

● How would you most like to improve your writing?