# Publishing Your Research

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# Meredith Ringel Morris

- PhD in CS from Stanford in 2006 (focus = HCI)
- 14+ years at Microsoft Research, now Google
- Affiliate Prof. at UW CSE & iSchool
- ACM Fellow, SIGCHI Academy
- Program Chair for CHI, CSCW, ASSETS, etc.
- TOCHI Editorial Board
- 100+ papers including several Best Paper and Lasting Impact Awards



# Lydia Tapia



- Grad Cohort, 2004?
- Ph.D. 2009, Texas A&M U.
- Postdoc 2009-2011, U. Texas Austin

- Assistant Professor 2011-2017, U. of New Mexico Associate Professor 2017-??, U. of New Mexico Chair of Computer Science, 2022, U. of New Mexico
- Interdisciplinary research in high-dimensional robotics
  - Robotics work with ECE and MF
    - Robotics venues
    - Control venues
  - Computational biology work with UNM Medical School, Biology, and Chemical Engineering

    CS computational biology venues

    - Biology venues
- About my publication record

   Pre- PhD 10 papers (2 papers/year)

   Pre-tenure Faculty 34 papers (over 5 papers/year)

   Post-tenure Faculty 32 papers (over 6 papers/year)

   Best Paper Award, top conference for area



### The Publishing Process:

The Why of Writing Papers



# The "Writing Bug"



It's addictive!

It feels good:

- to share what you've done
- · others to be interested

to say how you've advanced state of the art!



# Feels Good... Keep Doing It?!

#### Yes and No....

- Quality!
- Quantity varies by area
- Citations matter as career progresses
- Venue matters



#### **Avenues for Publication**

#### **Examples from Robotics**

IEEE Transactions on Robotics
Journal

IEEE International Conference on Robotics and Automation

Workshop on Machine Learning in Planning and Control

Workshop on the Algorithmic Foundations of Robotics



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### **Avenues for Publication**

field

recognition

feedback

**Examples from Robotics** 

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Journal

Workshop on the Algorithmic Foundations of Robotics

Robotics and Automation Visibility

Workshop on Machine Learning in Planning and Control



Workshop Abstractš

**Doctoral Consortium** 

Conference/Workshop Posters

#### Other Outlets

Thesis

Software, patents, books, data repositories

Social media: blogs, Twitter, YouTube



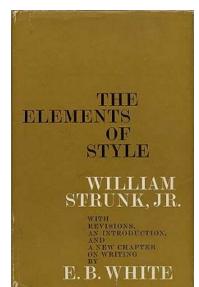


# The Writing Process: The How of Writing a Paper



# Writing 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





#### **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.



# Start Early

- The more iterations, the stronger the paper
- Set an internal deadline with your advisor
- When is a draft "advisor ready"? Perfection isn't expected
- Leave ample time for advisor and peer feedback, making submissions accessible, creation of video or other supplementary materials



#### 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)
  - For interdisciplinary work, be aware that different communities have different customs

#### Make an Outline

- Iterate and agree on the outline with your advisor before you start writing
- You don't need to fill in the sections in order!
  - Sections I often find easier to write first: Related Work, Methods, Results
  - Sections I often save until later: Introduction, Discussion



### Revise, Revise, Revise

- Easier to revise an outline than carefully crafted text
- Can save the Introduction to later, but agree on the major points: problem being addressed, weaknesses of previous work, contributions of this paper, ensuing sections
- Nail down terminology
- Create figures to be included



# But, things might change

- Writing a paper sometimes helps you see the work in a new light
  - Need to be explicit about underlying assumptions
  - Often, need to explain work to non-experts in this area
  - Need to flesh out details that "seemed" clear
- Might lead to changes in the outline, the figures, even the authorship



#### **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

- Sleep on it!
- What if your scores are very low or high?
- Prioritize reviewers' comments & group by themes
- As with all writing, start early, get feedback, iterate
- More at <u>aka.ms/rebuttals</u>



# Things to Avoid

- Plagiarism (including self-plagiarism)
- Dual submissions
- All-nighters (start early, iterate often!)
- Complaining about reviews on social media
- Submitting without knowledge of advisor/coauthors

### Questions?

