CIS 640
Writing in Computer Science Research

“Lecture 1”: Class Overview
Disclaimers

• I love teaching this class
• We have had some great groups
  – Enjoyed our class time
  – Learned a lot
• Some of these slides are harsh – sorry
  – (“Do this or No Pass”)
Class Webpage

- [https://classes.cs.uoregon.edu/21S/cis640/](https://classes.cs.uoregon.edu/21S/cis640/)

- These slides are posted on the class webpage
Course Outcomes

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• Students will submit writing samples, and provide and accept constructive criticism with their peers, in a workshop format.
• Students also may read and discuss authoritative texts on technical writing.
• Throughout the term, students will apply what they learn to their writing.
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  – Effective writing at the sentence-level.
  – Organization of a research paper, including important elements of each section in a research paper (for example, the important elements in an introduction, in related work, etc.).
  – Writing from the perspective of the peer review process. This includes both how writing may be interpreted during peer review and the process of peer review itself (conferences and journals).
Course Prerequisite

• Must be writing something this term
  – PhD students:
    • Typically DRP or Area Exam
    • Could be dissertation or a paper
    • Fellowship proposal
  – MS students:
    • MS thesis
    • Survey paper (did you do a survey for 630 or 631?)
What You Have To Do

• 1) Attend class
  – Absence by permission only
• 2) Perform course tasks
  – Writing, reviewing, revision
  – (See next slide)
• 3) Keep on schedule
  – We work as a unit, and we all must keep the schedule
  – Exceptions by permission only
• Failure to do any of these three will result in a No Pass
Writing, Reviewing, Revision

• Writing
  – 5 submissions of 1-2 pages each
  – Final paper (8 pages)
  – 4 revisions of writing

• Reviewing
  – 12 reviews

• first 4 submissions each get 3 reviews
Example Plan

- Week 2: write “Introduction” section
- Week 3: receive feedback on “Introduction”
- Week 4: write “My Method” section, revise “Introduction”
- Week 5: receive feedback on “My Method”
- Week 6: write “Experimental Overview” section, revise “My Method”
- Week 7: receive feedback on “Experimental Overview”
- Week 8: write “Results” section, revise “Experimental Overview.”
- Week 9, receive reviews on “Results”
- Week 10: write “Related Work,” revise “Results”
- Finals Week: complete Final Paper
Problems with Plan

• When were Conclusion & Abstract written?
• Answer: example plan is just a strawman
• Write 1-2 pages every two weeks
• If you write 1 page every time (5 pages), then you will have a miserable Finals Week (3 more pages)
• If you write 2 pages every time (10 pages), then you will have an easy Finals Week
Final Paper

• Length: 8 pages in IEEE format
  – This will use all the text from 1\textsuperscript{st} 5 submissions
• No giant figures, weird whitespace tricks
• Final paper must be submission quality
• Due Tuesday June 8\textsuperscript{th}, 1015am
  – We will revisit on Week 8 and see if we should extend
What does “submission” quality mean?

• When you “submit” a paper to a conference or journal, you are expecting 100s of people to read it

• The author (you) should work hard to make the paper as accessible as possible
Example

• Assume 100 people read it
• On average, spend 1h20 reading
• What if?:
  – Author spends 20 hours improving readability
  – Average reading time drops to 1h5m

• $1.333\times100 = 133$ hours
• $1.08\times100 = 108$ hours
• $133-108 = 25 \ldots$ the world is better off
More on “Submission” Quality

• I review a ton of papers
  – If someone has not done me the courtesy of making my experience as efficient as possible, then it puts me in a bad mood

• This is a very different setting than writing a term paper for a class (one author, one reader)
4 Reviews

• Each review must have the following:
  – 5-10 grammatical / wordsmithing suggestions
    • If the writing is great, then 5
    • If the paper is rough, you stop at 10
  – 3 “big picture” suggestions on how to improve
Revisions

• Each revision should take into account reviews and fix all problems
Participation

- Every student will attend lecture and participate in peer review of cohort's writing samples
- Every student will offer up text for group review
Logistics (1/2)

• Will be run through EasyChair
  – EasyChair link on class website
  – (I know Canvas is beloved)

• Reviews must be completed 5 days after assignment
  – Can go “on vacation”
Logistics (2/2)

<table>
<thead>
<tr>
<th>End of Week</th>
<th>Min # of submissions</th>
<th>Min # of reviews completed</th>
<th>Min # of revisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
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<td>10</td>
<td>5</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Finals</td>
<td>5+1 final paper</td>
<td>12</td>
<td>4</td>
</tr>
</tbody>
</table>

If you fall behind the minimums at any of these weeks, then you will receive a “NP” in the course.
(This class only works if everyone is making steady progress)
How Will We Spend Class Time?

• Look at writing examples and collectively edit
  – While this seems like it might be uncomfortable, it has been OK so far
  – We are each on a personal journey to become our best writing self

• Also, I can talk about topics as needed
  – How papers are accepted?
  – What should go in each section?
  – Other?
My Own Personal Writing Story

• Summary:
  – poor writer as a PhD student, good writer now

• Observations:
  – writing improves and is easier as you practice
  – I used to hate writing and now _enjoy_ it
  – students often put way too little time into writing
    • since they hate doing it
    • coding is more fun
Anna Karenina Principle

• “All happy families are alike; each unhappy family is unhappy in its own way”

• While each problematic paper is uniquely unhappy, there are common themes

• We will be collectively identifying “unhappy families” themes throughout the term
“Unhappy Families” From Hank (1/3)

• (1) every sentence reads well, but the whole is a jumbled mess
  – No sense of purpose per paragraph / section
  – Facts appear in random places
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  – No sense of purpose per paragraph / section
  – Facts appear in random places
• (2) only makes sense if the reader already knows what you are talking about
• (3) procrastinate, procrastinate, procrastinate, write hastily and declare done and then get co-authors to fix
“Unhappy Families” from Hank (2/3)

• (4) Writing is overly complicated
  – Example:
    • lots and lots of clauses,
    • Clauses are not well connected
      – leave it to the reader to figure out how they relate
    • say what the subject is at the end of the sentence
“Unhappy Families” from Hank (2/3)

• (4) Writing is overly complicated
  – Example:
    • lots and lots of clauses,
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• (5) Writer assumes the reader is as fascinated by the topic as the author and will endure endless details because of their mutual shared fascination
“Unhappy Families” from Hank (3/3)

• (6) Writer assumes too much knowledge
“Unhappy Families” from Hank (3/3)

- (6) Writer assumes too much knowledge
- (7) Writer assumes too little knowledge
“Unhappy Families” from Hank (3/3)

• (6) Writer assumes too much knowledge
• (7) Writer assumes too little knowledge
• (8) Writer has not properly digested/synthesized their own work, and expects reader to so excited about that their work that the reader will do this digesting/synthesis on their behalf
Non-Native Speakers

• You may consider typing in MS-Word
• This way MS-Word will catch many problems before they make it to your reviews
Pitfalls: Area Exam

• This class has worked well when Area Exam document is already in progress
• Not as good for those just starting, unless you can really really really devote yourself
  • Typical Area Exam: 20 pages, 6 months of 30 hours/week
  • → ~40 hours of effort per page
• This class: 8 pages, 10 weeks of 8 hours/week (for 640)
• → 10 hours of effort per page (???)
Pitfalls: DRP / Research Paper

• Can be harrowing if results are coming “just in time” for paper writing

• Remediation:
  – focus on what you can do
  – write good sentences that are factually wrong and revise when the real results come
  – Deliver 8 pages of mashup: 6 pages of DRP, 2 pages of Area Exam
Pitfalls: MS

• In my previous offerings, we had no MS students
• If you are doing a thesis or research paper, then this will be like PhD students
• If not, then you should do a survey
  – Perhaps you join forces on what to survey?
  – I am softer on “submission quality” standards here – this is an 8 hour / week course
  – That said, it must be 8 pages, IEEE format
How to Begin?

• For you doing your writing?
  – Pick a section and write it
    • by <when>?
  – Note: there are often slight variations in how papers are organized between fields

• For this class?
  – Two volunteers who can be ready in one week?
Let’s Introduce Ourselves
My Random Writing Facts (1/2)

• Adjectives have an ordering

Order of adjectives

How to order adjectives in English

In many languages, adjectives denoting attributes usually occur in a specific order. Generally, the adjective order in English is:

1. Quantity or number
2. Quality or opinion
3. Size
4. Age
5. Shape
6. Color
7. Proper adjective (often nationality, other place of origin, or material)
8. Purpose or qualifier

A. I was surprised to receive a _______________ puppy for my birthday.
   • little, cute, eight-week-old golden retriever
   • cute eight-week-old little golden retriever
   • cute little eight-week-old golden retriever
My Random Writing Facts (2/2)

• Punctuation inside quotes? ... not always.

In American usage, commas and periods at the end of quotes always go inside the quotation marks. In British usage, they can go either inside or outside (in the same way as questions marks and exclamation points in American style, see below).

• He said, "I'll be going to the party later."
• "When you have finished your time out," her dad said, "you must go to mom and say 'I'm sorry.'"

There are certain punctuation marks that always go outside quotation marks. Here, both American and British English follow the same rule. Punctuation marks that go outside are:

• Colons
• Semicolons
• Dashes

The following are examples of punctuation marks that stay outside quotes:

• The speaker listed three "secrets of success": confidence, perseverance, and passion.
• His favorite team is the "Rams"; he has never missed any of their games.
• She laughed and said, "I don't think he will pass his driving test" - then he pulled up in front of the house.