Reviewing Research Articles

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Academic Paper Reviews

- Evaluate a research paper

- Often in several categories:
  - Technical contribution and quality
  - Originality
  - Presentation and Language
  - Background
  - Appropriateness/Scope
  - Community value

What is the purpose of a review?

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- Evaluate a paper for publication (conference/journal/thesis etc.)
- Provide feedback to authors
- Learn about new research directions
- Provide credibility

Blind Review vs. Non-blind Review

- Blind review – Authors' names are withheld, citations should not make author's identity apparent

- Non-blind review – Authors' names left on paper

Blind Review vs. Non-blind Review

- Discuss in your group:

- What are advantages of blind review?
- … non-blind review?

- What are disadvantages of each?

- (10 min)
  - Discuss, each group nominate a member to give 1 advantage/disadvantage of each

Blind Review – Author's Perspective

- Improve fairness of reviews
  - If reviewers don't know who I am, can't be unfair
- Make sure I don't need to already be a community member to join
  - No (inherent) disadvantage to small/bad schools
- Improve credibility
  - Reviewers can't be influenced by famous names, so only legitimately good papers get in

Blind Review – Reviewer's Perspective

- Harder to perform a review
  - Blanked citations: can't determine originality compared to cited works
- Author can still be determined
  - Some groups work on the same projects, names
  - Other times, we just ***think*** we know who it is

The other “Blind” Review

- Typically, “Blind” refers just that we don’t know author names…
- Reviewer names are almost always not known
  - Prevent future retaliation or dishonest reviews
  - But, gives little feedback as to who reviewed, what their expertise is, and little ability to disagree
- Journal reviews are often “persistent”
  - The same reviewers see each iteration of the paper
  - But authors still don’t know who the reviewer is

Roundtable

- Should the reviewer's name be public information also?

- Nominate one person from your team to argue your team's position

But, I'm not an expert yet

- How can I review a paper if I'm not an expert?
- Research papers are supposed to **disseminate** results – readers shouldn't need to be experts
  - You should be knowledgeable, but shouldn't have to be an expert in the area to understand
- If a paper isn't clear to a knowledgeable reader, it needs to be made better

Becoming an expert

1. Read lots of papers
2. Read more papers
3. Read even more papers

- When you review:
  - Do you understand the terms they use?
  - Do you recognize the cited papers?
  - Do you recognize the research area?

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- Originality
- Impact/Contribution
- Language
- Organization
- Background
- Community Value
- Appropriateness

Questions to ask

- What is the contribution of this paper?
  - Is it new? Is it important?
  - What are the quantitative results?
  - How does it compare to prior best techniques?
- Are all of the terms defined?
- Is the organization of the paper clear?
- How was the data gathered?
  - Do graphs/tables clearly present the contribution?
  - Is the data aggregated clearly?

More questions

- How thorough is the background survey?
  - What is “related” work?
- How valuable is this work to the community?
  - Open-source?
  - Benchmarks?
  - Reproducible?
- How appropriate is this work for the conference or journal?

Assignment

- For Wednesday:

- Select and read a research paper of your choosing
  - Think about its quality in terms of the categories we talked about
  - Bring a copy of the paper to class, to discuss within groups