How to publish and review

Publications and reviews

- Every serious publication in academia/industry will be reviewed
- Academia
  - Well-understood process
  - Mostly technical papers and proposals
- Industry
  - Project plans
  - Code
  - Experiment results

Where to publish

- Online technical reports
  - Disseminates results immediately
  - Timestamp the work
  - Full version (no page restrictions)
  - Examples https://arxiv.org/
- Conferences
  - Different tiers
  - Acceptance rate depends on conference
  - Can take 2-3 rounds for tier-1

Where to publish - II

- Workshops
  - Single-track
  - Lots of discussions
  - Great feedback and good to test ideas before full-paper
- Top journals
  - Major archival publication
  - In-depth review process
  - Can take longer
- Social media
  - Twitter, blogs, WordPress, LinkedIn/FB posts, etc.
  - Not a proper publication
  - Not reviewed but it can help on getting feedback

On tips for writing

- Jennifer Widom (Stanford)
  - Tips for writing technical papers
  - https://cs.stanford.edu/people/widom/paper-writing.html
- Peter Bailey (@peter_r_bailey)
  - Summary of tips with a focus on SIGIR conference
  - https://www.cnblogs.com/lyfruit/articles/3045907.html

Industry

- Different artifacts require different documents
  - All of them are reviewed before publication
- Press release
- Requirements
  - https://ifs.host.cs.st-andrews.ac.uk/Books/SE9/Web/Requirements/IEEE-standard.html
- Technical specification
  - https://stackoverflow.blog/2020/04/06/a-practical-guide-to-writing-technical-specs/
- Design document

Industry - II

- Reference manuals
  - APIs
  - Developer's guide
- Site reliability
  - https://sre.google/sre-book/table-of-contents/
- Relevance evaluation guidelines
  - Google https://services.google.com/fh/files/misc/hsw-sqrg.pdf
  - Bing https://searchengineland.com/bing-search-quality-rating-guidelines-130592
- Content moderation
  - Facebook https://transparency.fb.com/policies/community-standards/
  - Twitter https://help.twitter.com/en/rules-and-policies/twitter-rules

Review form – open ended questions

- What is the main contribution of the paper?
- List at least three strengths of the paper
- List at least three points of improvement.
- Please provide a detailed discussion of the work itself, focusing on both strengths as well as possible points of improvement.

Review form – closed questions

- Original work
  - Truly novel: Few people would have come up with these ideas
  - Creative: Relatively few people in our community would have put these ideas together
  - Conventional: A number of people could have come up with this after some thought
  - Straightforward: Obvious or a minor improvement on familiar techniques
  - Significant portions have actually been done before or done better
- Technical content
  - There are no technical shortcomings or omissions
  - The technical facts are appropriately described but there are some minor errors or omissions
  - There are some technical shortcomings, but the main idea is generally solid
  - There are many technical shortcomings which make the descriptions unreliable
  - The conclusions are not supported by the technical description

Review form – closed questions II

- Quality of presentation
  1. Well-written in every aspect
  2. The essential content is complete and the paper is understandable to most readers
  3. The paper misses a few important details but the major points were clear
  4. Important questions were hard to resolve even with effort
  5. Much of the paper is confusing
- Contributions
  1. This is seminal work, and will substantially influence future research directions
  2. Some of the ideas, results, or resources will substantially help other people's ongoing research
  3. Interesting but not too influential: the work will be cited but mainly as a comparison or minor contribution
  4. Marginally interesting but may or may not be cited
  5. Unlikely to be cited or useful to other researchers in the field

Review form – closed questions III

- Citations
  - The related work section is exemplary
  - The relevant publications are cited appropriately but the discussion could be more comprehensive or insightful
  - There are a few missing citations; the discussion does not put the current work in context
  - Missing many relevant citations; fails to put the work in the context of related work
  - Missing significant relevant citations or the work is inappropriately cited
- Reproducibility
  - Fully replicable: the experimental setup is fully transparent, described in detail, and the data is publicly available
  - The experiments could be reproduced: the experimental setup is clear, the data is described in detail, but is not available outside of the authors' organization
  - Some of the experiments could be reproduced, but details of the data and experimental setup could be more explicit; the data would not be replicable even inside of the authors' organization
  - The experiments could not be reproduced: the experimental setup is discussed but there are significant missing details about the experiments or the data
  - The experiments could not be reproduced: the details of the experimental setup are absent or unclear

Review form – self-review

- How carefully have you read this paper?
  - Went over it several times
  - Understood all details
  - Carefully, but haven't checked all details
  - Went over it quickly but got the main ideas
  - Just skimmed it
- How knowledgable are you on the topic?
  - I have published extensively on this topic
  - I have worked on related topics and have read all the main publications
  - I have worked on related topics and have a good general understanding of the area
  - I have a good general understanding of the area
  - I read very few publications on this topic

Review form – final recommendation

- Is the contribution interesting and demonstrated convincingly? Do the strengths outweigh the limitations? Are there serious issues in key parts of the paper?
- Vote
  - Strong accept
  - Accept
  - Weak accept
  - Borderline
  - Weak reject
  - Reject
  - Strong reject

Journal review form: ACM TWEB

- Open ended questions
  - Comments
  - Describe how the submission advances the state of the art in the field
  - Suggest beneficiaries from the work

Journal review form: ACM TWEB

- Is the paper in the expected journal style?
- Are the references comprehensive and appropriate?
- Relative to the subject material, is the paper understandable without requiring too much effort on the part of the reader?
- Please rate the relevance of the paper to TWEB from 1 to 5, 1 being the lowest/poorest score
- Is there enough new content in this paper to distinguish it from other works?
- Is the work primarily theoretical, practical or is it a survey?
- Is the content technically sound?
- Rate the level of originality and innovation of the work reported from 1 to 5, 1 being the lowest/poorest score.:
- Rate the impact of this work on the research community, 1 being the lowest/poorest score.:
- Suggest beneficiaries from the work.: Information systems, site wrapping and web mining researchers-software developers.
- Rate the impact of this work on the wider community, 1 being the lowest/poorest score.:
- Please help ACM create a more efficient time-to-publication process: Using your best judgment, what amount of copy editing do you think this paper needs?:
- Most ACM journal papers are researcher-oriented. Is this paper of potential interest to developers and engineers?:

Tips for reviewing -- Academia

- Accept to review iff you have time
- Read the paper at least a couple of times. Let it rest before you make a decision.
- Provide useful and actionable feedback
- Respect the authors

Tips for reviewing -- Industry

- Fast turnaround compared to Academia
- Interviews, proposals, data analysis results, go/no-go, code, etc.
- Useful feedback
  - Precise and actionable
  - Data-driven, facts, examples
- Not useful feedback
  - Verbose and not to the point
  - Superficial comments

Links on Reviewing

- Example of open review
  - https://openreview.net/forum?id=fsacLLU35V&noteId=0YZBFu5GSG
- Reviewing the reviewers:
  - https://aclanthology.org/J05-4006/
  - https://www.cambridge.org/core/journals/natural-language-engineering/article/emerging-trends-reviewing-the-reviewers-again/10CDC1D71E1AEB21456CFBDA187CBCB6
  - https://www.cambridge.org/core/journals/natural-language-engineering/article/emerging-trends-sotachasing/5E9F9F796159040973053C52C443C1D6
- https://blog.neurips.cc/2021/12/08/the-neurips-2021-consistency-experiment/