

CMPT 880/890

Reviewing

Outline

- What is peer review
- Why review?
- The review process
- Types of reviews
- How to review

What is peer review?

- “a formal system whereby a piece of academic work is scrutinised by people who were not involved in its creation but are considered knowledgeable about the subject.”
- “also used to describe professional appraisal processes used to assess the performance of an individual, team, or department.”
 - - Wager, Godlee, and Jefferson

Types of reviews

- Degree of formality
 - official review for a publication or agency
 - informal review for a colleague
- Anonymity
- What are you reviewing?
 - a paper
 - a grant proposal
 - a person (for hiring or promotion)
- For papers, type of publication
 - conference paper, journal article, book chapter, book

Why review?

- Peer review is a cornerstone of science
- Why do we need review at all?
 - We (the research community) need to judge whether a proposed piece of work is in fact a contribution
- Why *peer* review?
 - We are the experts who can best judge the contribution
- Why not judge everything for yourself?
 - Not enough time
 - Conferences and journals provide authority about what is worth reading

Why review?

- When there are resources or prizes at stake, there is a need to decide on quality
 - Limited number of spaces at a conference
 - Limited number of pages in a journal
 - Limited budget for a granting agency
 - Limited number of Ph.D. dissertation scholarships
- Academic organizations are cheap!
 - No money to pay expert reviewers
 - All peer review is voluntary and unpaid

Why review?

- Keep yourself up to date
 - You get to look at the latest research
 - (Can't talk about it though)
- Build your career
 - Reviewing is one of the checkmarks

arXiv - a counterexample

- arXiv.org is an archive of preprints in physics and math
 - more than 500,000 articles
- *not* peer reviewed
 - how do they maintain quality?
- self-governance
- moderators
- ‘endorsements’

arXiv - a counterexample

“The lack of peer-review, while a concern to some, is not considered a hindrance to those who use the arXiv. Many authors exercise care in what they post. A majority of the e-prints are also submitted to journals for publication, but some work, including some very influential papers, remain purely as e-prints and are never published in a peer-reviewed journal. A well-known example is a potential proof of the Poincaré conjecture uploaded by Grigori Perelman in November 2002. Perelman appears content to forgo the traditional peer-reviewed journal process, stating "If anybody is interested in my way of solving the problem, it's all there [on the arXiv] - let them go and read about it.”

While the arXiv does contain some dubious e-prints, such as those claiming to refute famous theorems or proving famous conjectures such as Fermat's last theorem using only high school mathematics, they are "surprisingly rare". The arXiv generally re-classifies these works, e.g. in "General mathematics", rather than deleting them. Prominent parapsychologists - for example, Nobel laureate Brian Josephson, have complained that this reclassification amounts to academic censorship, and that the arXiv ought to have no bar to entry.” - Wikipedia

The review process

- CHI – a large conference on HCI
- The players:
 - Two program co-chairs (“the chairs”)
 - Associate chairs (“the ACs”)
 - how many? number of submissions / 10
 - The secondary AC for a paper (“the 2AC”)
 - The submitted papers (“the papers”)
 - The authors of the papers (“the authors”)
 - The peers who review the papers (“the reviewers”)

The review process

- The timeline:
 - September 20: paper submission deadline
 - September 25: papers assigned to ACs by chairs
 - September 30: papers assigned to reviewers by ACs
 - October 30: review deadline (for reviewers)
 - November 5: meta-review deadline (for ACs)
 - November 10: reviews released to authors for rebuttal
 - November 15: rebuttal deadline (for authors)
 - November 15-25: discussion period (reviewers and AC)
 - November 25: assignment of 2AC
 - December 5: program committee (PC) meeting
 - December 12: decisions sent to authors

How are reviewers chosen?

- Depends on the publication
- In most cases, the AC tries to find the most expert reviewers for the paper
 - involves reading the paper carefully
 - who does the paper cite?
 - learn a bit about the area, and who the experts are
 - write to people and ask
- In some cases, automatic assignment from a DB

How to review

- 1. Get the invitation
- 2. Determine whether you can do the review
- 3. Read the paper for a general overview
- 4. Read the publication's review criteria
- 5. Read the paper again, asking yourself questions
 - see next slide
- 6. Decide on your score for the paper
- 7. Write your review, arguing for or against the paper
- 8. Submit your review

How to review

- What is the research problem or question?
- Is the problem/question well motivated?
- Is the solution/answer appropriate to the question?
- Is the evaluation appropriate?
- Are the conclusions valid?
- Is the work new compared to previous work?
- Is the work exciting and interesting?
- Is the work well presented?
- Does the paper adequately refer to previous work?
- Should the research be published in this venue?

How to review

- Structure of your report
 - (often specified by the publication)
- 1. Summary of review and decision
 - main reasons for decision
- 2. Summary of paper and main contribution
 - what is the author claiming?
- 3. The review
 - discussion of earlier questions
- 4. Summary

When to *not* review?

- In some cases you should not accept the request
- 1. You have a conflict of interest
- 2. You are not enough of an expert
- 3. You will not be able to complete the review properly in the required time
- If you are going to refuse, best to do so right away