Effective Reviewing

Research Methods for Human-Centered Computing

Effective Reviewing

Today's goal:

Teach you how to review a paper

Outline:

- Review criteria
- How to write a review
- Giving a score
- Reviewing as a process

Review criteria

What to judge about a paper

Review criteria

Main goal: judging the **quality** of the work

- Not really about whether you "like" the paper it,
- More about whether it is valid and significant
- Does it contribute something useful to the body of knowledge?

You should draw from your expertise

- If you're insufficiently knowledgeable: don't review it!
- Or: focus on the part that is within your area of expertise
- There's usually a way to indicate your level of expertise

Typical criteria

Technical content and accuracy

Significance of the work

Appropriate title, introduction and conclusion

Overall organization

Appropriateness for this venue (conference/journal)

Style and clarity

Originality of the content

Per section

Intro: Does it give a solid motivation for the research question? Is the research question clearly defined?

Related work: Is it relevant? Do the authors clearly explain the contribution of their work beyond prior research?

Research methods: Are they appropriate? Are they clearly explained (replicable)?

Per section

Results: Are the analyses valid? Does it go into sufficient depth?

Discussion: Are the results interpreted in enough depth?

Implications: Are they useful? Do they follow from the results?

What to look for

Most important: is the paper **technically** sound?

Are the methods correctly applied, is the analysis valid?

But also: is the study appropriate? Does it answer the questions it claims to answer?

If not, can this easily be fixed?

If so, demand revisions

If not, reject!

What to look for

Also very important: Is the contribution **substantial**?

If not, likely reject

Less important: Is it written **nicely**/appropriately?

If not, likely a revision, usually minor (unless you want e.g. a complete theoretical reframing)

Is the research and/or its outcome **ethical**?

Usually it is because of IRB, but check nonetheless

If you find **plagiarism**, report to the editor/AC

Some tips

Keep yourself "grounded"

It's easy to be very critical!

Judge the paper on its merits

Ask yourself: "is what the authors did valid?"

Refrain from asking "How would I have done it better?"

Unless you find a problem, of course

A paper does not have to be perfect

but limitations should be acknowledged!

Writing a review

Tone and substance

Writing a review

Summarize

List the positives, if any

Give an overall verdict and main reasons for this verdict

e.g. “I reject for these two main reasons”

This can also come at the end of the review

Go into detail on your main points one by one

Where appropriate* ask for clarifications

Writing a review

List minor points

e.g. spelling errors, missing graphs, etc.

If you recommend a revision, explain what needs to be revised in order to be acceptable

Review style

Be nice, professional

- Write to the editor, not to the authors

Where possible, talk about the paper, not the authors

- But if needed, you can talk about the authors
- However, don't address them directly (just say "the authors should…" rather than "you should…")

Giving a score

Your final judgment on a paper

Giving a score

For conferences: often a scaled score

-3 to +3, -2 to +2, 1 to 5

Usually with labels such as “definite reject, possible reject, neutral, possible accept, definite accept”

Scores tend to be low

CHI papers are scored 1-5 with half-point increments; this year’s mean score is 2.5 pre-rebuttal… papers are discussed in a meeting, and it is definitely possible for a 2.5 average paper to get in, or for a 3.5 average paper to get rejected!

Giving a score

For journals: usually: reject, reject with an option to resubmit, major revisions, minor revisions, accept

Papers rarely get accepted (or even minor revisions) on the first round

Major revisions = I see a clear path for this paper to get accepted

Reject and resubmit = I encourage the authors to try this again based on my feedback

Reject = this research is pointless / not suitable / far below the standard of this journal (basically: don't come back)

A process

Reviewing is a process

A process

Try to do your reviews on time

There are many more time-sensitive steps to be taken!

Once you submit your review, you can usually see others' reviews

Read them! This is how you learn how to write a good review, and a good paper...

Discuss

Important to talk about contradictions and differences in opinion; the editor or AC will guide this process

Rebuttals

If there is a rebuttal phase:

Explicitly tell the authors what you'd like to hear from them in the rebuttal

Set your score to the best of your current knowledge

- You can adjust based on the rebuttal
- If you do then this is usually an upward adjustment

Writing rebuttals

Be nice, thankful, and polite

The reviewers invested a lot of time in helping you

If the reviewers didn't understand the paper, 90% of the time this is because you didn't write it clear enough

Address misconceptions (most important)

Provide counterarguments (usually tradeoffs)

Pro tip: play reviewers against each other

Responding

If you are responding to a rebuttal:

- Acknowledge that you've read the rebuttal
- Explain whether you are convinced by the points (and if not why not)
- Point out if the authors failed to address important questions/problems

In a journal, rebuttals are part of the revision phase:

- Focus your judgments on the revisions and/or the explanations