

The Future of Reviewing

Andrei Voronkov

University of Manchester

EasyChair

EasyChair

- ▷ 160,000 users.
- ▷ 4,400 conferences.
- ▷ 210,000 submissions.
- ▷ 128,000 PC members.
- ▷ up to 5,500 users per day.
- ▷ 385,000 **reviews** plus 80,000 superseded reviews.
- ▷ 120,000 **comments**.
- ▷ 770,000 keywords.
- ▷ 90,000 lines of code.

Functions of reviews

- ▷ Assessment;
- ▷ Review;
- ▷ Help.

Reviewing in Computer Science

We know more about reviewing than any other area.

Reviewing models

- ▷ Open;
- ▷ Closed;
- ▷ In between.

We all suffer from reviewing

Reviewers:

- ▷ Incompetent
- ▷ Have no time
- ▷ Biased
- ▷ Personal interests/conflict of interest

Reviewing process:

- ▷ Badly organised
- ▷ Using wrong evaluation criteria

Mistakes in reviewing are very costly

- ▷ Personal level
- ▷ Society (funding agencies)

Evaluation

- ▷ Using metrics.
- ▷ Discussion.
- ▷ (Sometimes) voting

Novelties

- ▷ Programme committee meetings;
- ▷ Online discussion;
- ▷ Senior reviewers;
- ▷ Author's response;
- ▷ Shadow PC.

Funding agencies are eager to improve

UK funding agency → Andrei

Thank you for your message and the information about EasyChair, which sounds like a very valuable tool and clearly has a very strong endorsement from the academic conference sector.

We are not, however, currently planning to replace the established and highly developed peer review process which we use to assess funding applications, and I therefore do not see that it will be worthwhile for you to demonstrate EasyChair with this in mind.

What is a quality of review?

- ▷ Some recommendations online (be positive etc.)
- ▷ Mostly about social aspects of reviewing

Two aspects:

- ▷ Help to improve submissions
- ▷ Select the best submissions

How to measure quality of reviewing?

Using data

- ▶ Conference management systems have a very large amount of data;
- ▶ These data are **highly confidential**.

Problems caused by confidentiality

- ▷ Negativeness /quality of a reviewer.

New ways of reviewing

Experiments are required.

- ▷ Evaluation of reviewing;
- ▷ Swiss tournament system;
- ▷ Voting;
- ▷ Claim-based model;

Keyword: **comparison**.

- ▷ Negativeness of reviewers;
- ▷ Post-evaluation of reviewing;

How to improve work of funding agencies?

- ▷ Make them compete.

Integration of reviewing

- ▷ Post-reviewing;
- ▷ Open online reviewing