Peer Review in Computer Science

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Chair of Privacy and Data Security
Motivation

- Publication of findings is an essential part of science
- Scientific peer review is the de facto standard for quality management
  - Identify submissions that do not meet minimum standards
  - Identify submissions with highest merit and relevance

\[^{1}\text{Guidelines are based on Zobel, Justin. Writing for computer science. 3rd ed., Springer, 2014.}\]
Motivation

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- In this lesson¹
  1. The review process
  2. Guidelines for writing helpful reviews

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The review process
The review process

- Abstract submission
- Paper submission
- Paper bidding
- Submission of reviews
- Author notification
- Rejection of Paper
- Shepherding
- Submission of camera-ready paper
- Rebuttal
The review process

- **Responsibilities of the program chairs:**
  - Choose referees appropriately
  - Ensure that reviewing is completed in time and with adequate quality
  - Use reviews to decide whether paper should be accepted
  - Arbitrate if reviews differ strongly or authors argue that reviews are incorrect

- **Responsibilities of the referee:**
  - Be fair and objective
  - Maintain confidentiality
  - Avoid conflict of interest
  - Complete reviews in time
  - Declare limitations as referee
  - Take proper care in evaluating the paper
The review process

- **Responsibilities of the author:**
  - Being honest, ethical, and careful in their preparation of the paper
  - Ensure that content of the paper is correct
  - Ensure that presentation is at appropriate standard
  - Ensure that it is their own work unless stated otherwise
The review process

- **Contribution** is main criterion for judgement of paper

- **Originality:**
  - The presented ideas are significant, new, and interesting
  - Interesting or important ideas are more valuable than minor increments to existing work
  - The work affects many researchers
  - Obviousness/simplicity may not be negative

- **Validity:**
  - The presented ideas are shown to be sound
  - Appropriate methods chosen to demonstrate claims (e.g. proofs, analysis, modelling, simulation, experimentation)
  - Should be carefully described, thorough and verifiable
Review in the Hauptseminar

- Guiding questions for content:
  - What specific insights/claims does the work contain?
  - Does the author provide evidence for their claims (e.g., plausible citations)?
  - Does the author discuss related work (e.g., other existing surveys)?
  - Does the report cover recent works?
  - Does the set of selected publications seem representative?
  - Is the document self-contained?
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- Record negative as well as positive aspects
Writing helpful reviews

To provide a helpful review:

- Include negative as well as positive points in the review
- If possible, suggest concrete and realistic measures to improve shortcomings
- Do not insult the author or make fun of the author’s work
Concerning the presentation, the flow and writing is not so fluent, that makes the paper hard to read
Writing helpful reviews

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I am not an expert in the area, but the paper did not entice me to read further. The presentation needs to be improved significantly if it gets accepted.
Writing helpful reviews

_Concerning the presentation, the flow and writing is not so fluent, that makes the paper hard to read_

_I am not an expert in the area, but the paper did not entice me to read further. The presentation needs to be improved significantly if it gets accepted._

_While the privacy and resilience to failures are definitely important properties mentioned as the primary advantages of the proposed approach, the authors did not include any evaluation or discussion to which extend these properties are provided by their solution._
Writing helpful reviews

- See reviews not as judgement of your ability but more as opportunity for improvement
- Try to figure out which parts of your work need clearer explanations
- Reviews may contradict each other
- There is no obligation to address all mentioned points
## Next steps

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.06.22</td>
<td>13:00</td>
<td>Introduction to peer review</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Everyone writes 2 reviews</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Everyone receives 3 reviews</td>
</tr>
<tr>
<td>27.06.22</td>
<td>23:59</td>
<td><strong>Deadline for submission of reviews</strong></td>
</tr>
<tr>
<td>05.07.22</td>
<td>23:59</td>
<td><strong>Deadline revised version of report</strong></td>
</tr>
<tr>
<td>07.07.22</td>
<td>13:00</td>
<td><strong>Presentations</strong></td>
</tr>
</tbody>
</table>

- Due to room availability there is only few time before the presentations
- Contact your supervisor / start preparing your presentation early on