Models of peer review

An introduction to different types of peer review

Presented by Dr. Bahar Mehmani

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About the speaker

Bahar Mehmani, PhD
Peer Review Innovation Lead, Elsevier
LinkedIn: @mehmanib
Contents

Section 1.2: Models of peer review

a. Different peer review models: peer review terminology standards

b. Internal peer review and editorial office vs. external peer review
Peer Review terminology standards: inclusive and clear

The publishers association, STM, and the information standardization organization NISO have created a peer review terminology standard that unifies all different types of transparency in the peer review process into

• Identity transparency
• Interaction/communication transparency
• Peer review information transparency
• Post-publication commenting transparency

More information:
10.3789/ansi.niso.z39.106-2023
Identity transparency

This category describes the extent to which identities of participants are made visible to each other during the review process. Identities not made visible during the process may be made visible at publication on the article page.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All identities visible</td>
<td>Reviewer identity is visible to author, author identity is visible to reviewer, reviewer and author identities are visible to (decision-making) editor</td>
</tr>
<tr>
<td>Single anonymized</td>
<td>Reviewer identity is not made visible to author, author identity is visible to reviewer, reviewer and author identity is visible to (decision-making) editor</td>
</tr>
<tr>
<td>Double anonymized</td>
<td>Reviewer identity is not made visible to author, author identity is not made visible to reviewer, reviewer and author identity is visible to (decision-making) editor</td>
</tr>
<tr>
<td>Triple anonymized</td>
<td>Reviewer identity is not made visible to author, author identity is not made visible to reviewer, reviewer &amp; author identity is not made visible to (decision-making) editor</td>
</tr>
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Interaction/communication transparency

This category relates to direct interaction or exchange of information (e.g., via submission systems or email) during the peer review process.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editor</td>
<td>Reviewers are invited by the editor and can only communicate with the editor.</td>
</tr>
<tr>
<td>Other Reviewers</td>
<td>There is a direct interaction/collaboration (e.g., via submission system or email) between reviewers, or the possibility to receive and/ or comment on each other’s reports before reviewer makes recommendation to the editor. Identities can be anonymized or visible</td>
</tr>
<tr>
<td>Authors</td>
<td>There is a direct interaction/collaboration (e.g., via submission system or email) between author and reviewer before reviewer makes recommendation to the editor. Identities can be anonymized or visible</td>
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</table>
# Peer review information transparency

This category relates to information that is published about the peer review process on the article page.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>No information about the peer review process or the editorial decision process is published</td>
</tr>
<tr>
<td>Review summaries</td>
<td>Summaries of the peer review reports, or a summary of the peer review process is published</td>
</tr>
<tr>
<td>Review reports</td>
<td>Full contents of the reviewer comments to authors are published. This can be a journal policy. Review reports may have reviewer identities depending on the journal policy</td>
</tr>
<tr>
<td>Submitted manuscript</td>
<td>The submitted version of the manuscript is published. This can be a journal policy, or a choice given to authors</td>
</tr>
<tr>
<td>Author/editor communication</td>
<td>Editor decision letter and author rebuttals are published</td>
</tr>
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## The cons and pros of different peer review models

<table>
<thead>
<tr>
<th>Type</th>
<th>Most common in</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
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</table>
| Single anonymized           | Physical Sciences              | Reviewers can criticize without any influence being exerted on them by authors | • Does not protect authors from gender, affiliation, status, or any other sort of biases  
  • Editor biases aren't tackled |
| Double anonymized           | Social Sciences                | • Same as above  
  • Reducing reviewer bias against author gender/affiliation/status, etc. | It is extremely difficult in practical terms to fully anonymize authors and reviewers (self-citation, subject, or writing/presentation style) |
| Triple anonymized           | Some journals in Humanities    | • Same as above  
  • Reducing the decision-making editor’s biases | • Same as above |
| All identities and/or       | Gaining momentum in different subject areas in recent years | • No effort is needed to mask identities  
  • Might reduce biases | • Adoption is slow  
  • The fear of Retaliation might impact the reviewer comment and editor decision |
| communications visible      |                                |                                                                             |                                                                               |
Internal peer review

- Handling editor evaluates submissions and determines whether they enter into the external review process or are rejected
- Peer review is conducted by the editorial staff of the journal
- One or more of the journal editors serves as referee
- Decision is made by editor once all referee reports are discussed

Useful read: The effects of an editor serving as one of the reviewers during the peer-review process
External peer review

• Handling editor does not review the manuscript but knows the community and subject areas very well
• Handling editor invites experts in the field to peer review the manuscript
• Handling editor makes a decision based on submitted review reports
Thank you.

Ask your questions in the comments section of the Module Page.

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