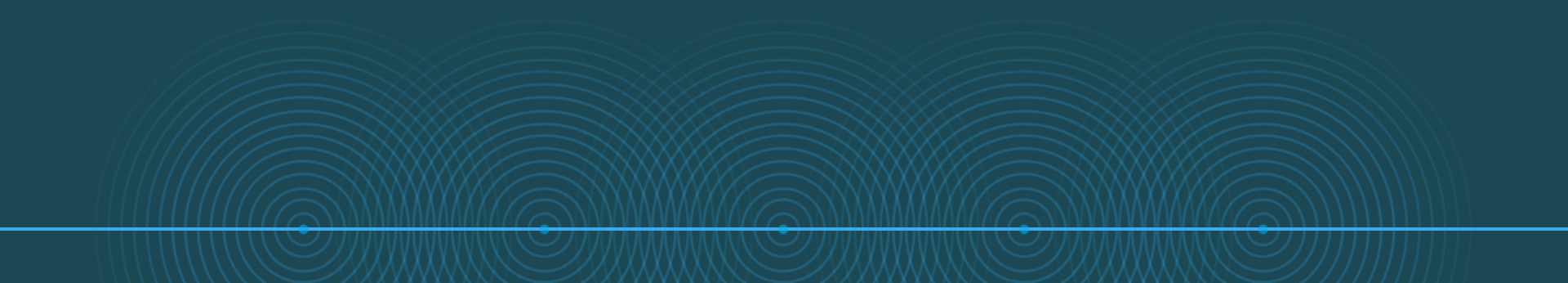


Models of peer review

An introduction to different types of peer review

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About the speaker



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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](https://doi.org/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.

Type	Description
All identities visible	Reviewer identity is visible to author, author identity is visible to reviewer, reviewer and author identities are visible to (decision-making) editor
Single anonymized	Reviewer identity is not made visible to author, author identity is visible to reviewer, reviewer and author identity is visible to (decision-making) editor
Double anonymized	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
Triple anonymized	Reviewer identity is not made visible to author, author identity is not made visible to reviewer, reviewer & author identity is not made visible to (decision-making) editor

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.



Type	Description
Editor	Reviewers are invited by the editor and can only communicate with the editor.
Other Reviewers	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
Authors	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

Peer review information transparency

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

Type	Description
None	No information about the peer review process or the editorial decision process is published
Review summaries	Summaries of the peer review reports, or a summary of the peer review process is published
Review reports	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
Submitted manuscript	The submitted version of the manuscript is published. This can be a journal policy, or a choice given to authors
Author/editor communication	Editor decision letter and author rebuttals are published

The cons and pros of different peer review models

Type	Most common in	Advantages	Disadvantages
Single anonymized	Physical Sciences	Reviewers can criticize without any influence being exerted on them by authors	<ul style="list-style-type: none"> Does not protect authors from gender, affiliation, status, or any other sort of biases Editor biases aren't tackled
Double anonymized	Social Sciences	<ul style="list-style-type: none"> Same as above Reducing reviewer bias against author gender/affiliation/status, etc.  (see: https://www.pnas.org/doi/10.1073/pnas.2205779119)	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	<ul style="list-style-type: none"> Same as above Reducing the decision-making editor's biases 	<ul style="list-style-type: none"> Same as above
All identities and/or communications visible	Gaining momentum in different subject areas in recent years	<ul style="list-style-type: none"> No effort is needed to mask identities Might reduce biases  (see: https://www.nature.com/articles/s41467-018-08250-2/)	<ul style="list-style-type: none"> Adoption is slow The fear of Retaliation might impact the reviewer comment and editor decision

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.

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