

The Wiley logo is rendered in a bold, black, serif font. It is positioned in the lower-left quadrant of the slide, set against a background of overlapping blue circles and a dotted line that curves across the top right.

Journal Peer Review: Processes and Innovations

James Murphy, Director, Research & Professional

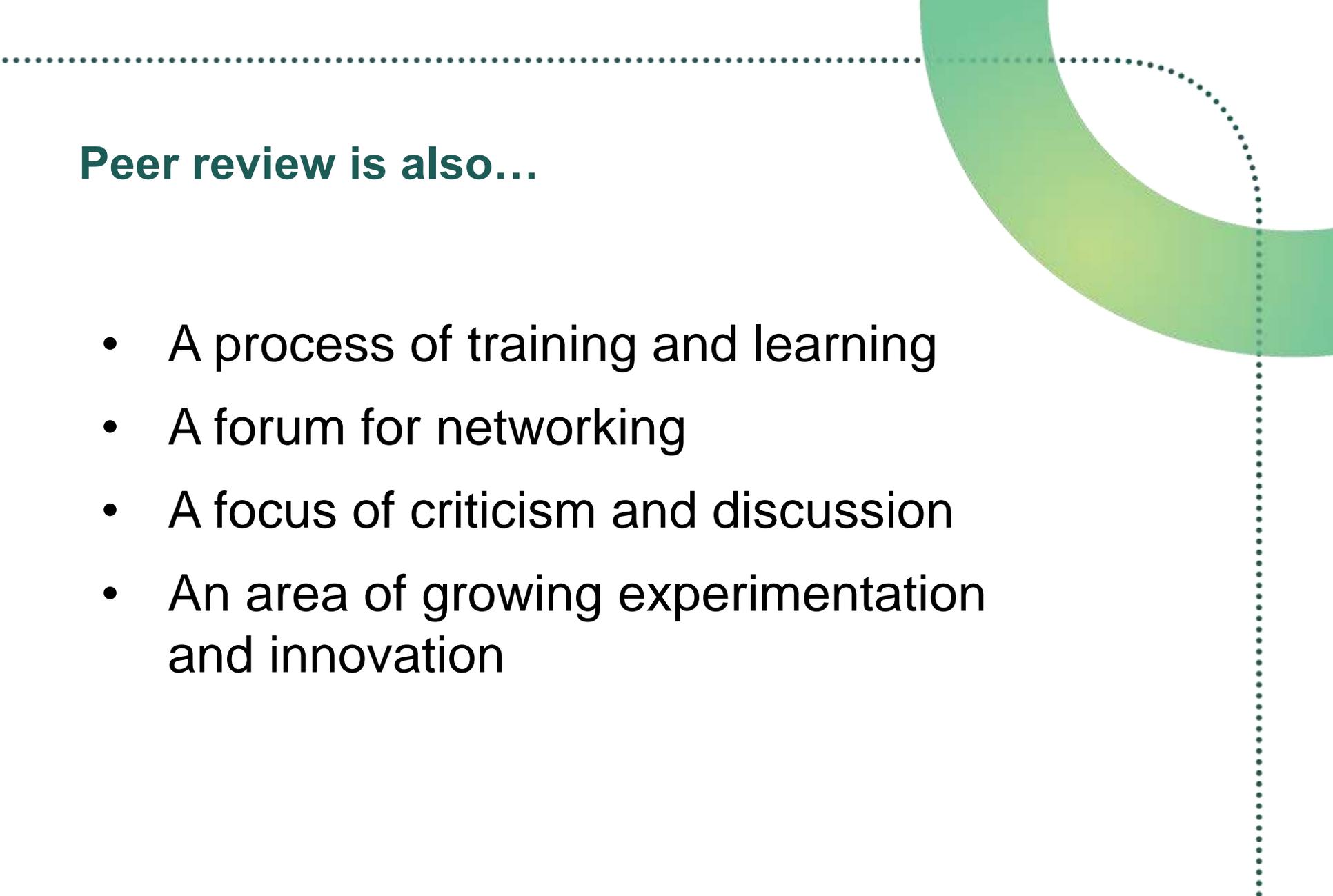
Slides adapted from presentations by Verity Warne, Michael Willis, and Heidi Allen of Wiley

What is Peer Review?

In its basic form...

*“A **process** by which a scholarly work is **checked** by a group of **experts** in the same field to make sure it meets the **necessary standards** before it is published or **accepted**”*

- Merriam-Webster

A decorative graphic on the right side of the slide consists of a thick, curved green shape that starts at the top right and curves downwards and to the left. A dotted line follows the inner curve of this shape, starting from the top right and extending downwards. Another dotted line runs horizontally across the top of the slide, and a vertical dotted line runs down the right side, intersecting the horizontal one.

Peer review is also...

- A process of training and learning
- A forum for networking
- A focus of criticism and discussion
- An area of growing experimentation and innovation

Peer review process



Benefits of Peer Review

Trust and quality

“Peer review is the central pillar of trust for researchers”

University of Tennessee and CIBER Research Ltd, 2013

Peer review makes science better

“90% of researchers feel that peer review improves the quality of their published paper”

University of Tennessee and CIBER Research Ltd, 2013

Benefits of Peer Review

Authors and publisher contribution

Good peer review attracts authors

Our authors tell us that the peer review process and speed are the #1 contributing factors to a pleasant publishing experience

“Refereeing quality and refereeing speed are most important factors attracting authors to publish in a journal”

Mabe & Mulligan, 2011

It's where we add value

“Organizing and managing peer review is viewed by researchers as the crucial role for publishers”

University of Tennessee and CIBER
Research Ltd, 2013



What authors care about

“The reviewers worked me very hard but made a genuine commitment to provide excellent feedback which assisted in the development of the article.”

1. Speed to publication
2. Quality of peer review
3. Understanding reviewer comments



What distinguishes an excellent reviewer experience from a ‘middling’ experience?

“ The editor and his immediate staff of handling editors... when the editor is fully engaged in the peer review process and applies a personal touch with my fellow reviewers, it makes a difference to me in the overall experience. ”

“ An excellent review experience usually involves my own learning—either through the research I’m reviewing or, less commonly, comments from the editorial team on the quality of my review. ”

Criticisms of Peer Review

- Black box
- Takes too long
- Too few reviewers
- Costs too much
- Weak at detecting mistakes, fraud
- Biased
- Web changes everything



QUANTITY:

How many submissions are rejected after going through a review process?

TIME:

How many hours total are spent in the review process?







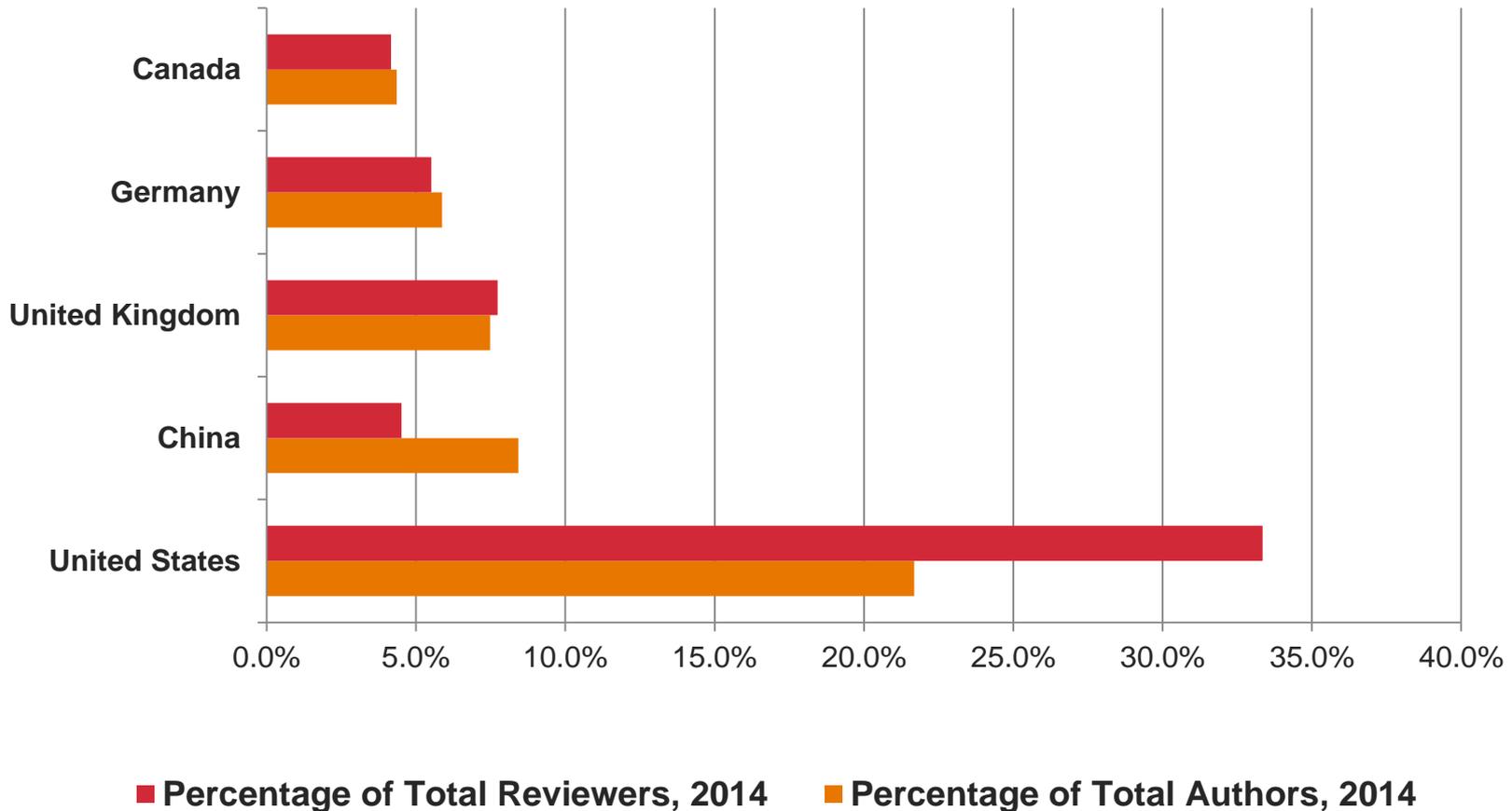


US researchers
review 10% more
than they publish

Chinese researchers
publish twice as
many papers as
they review

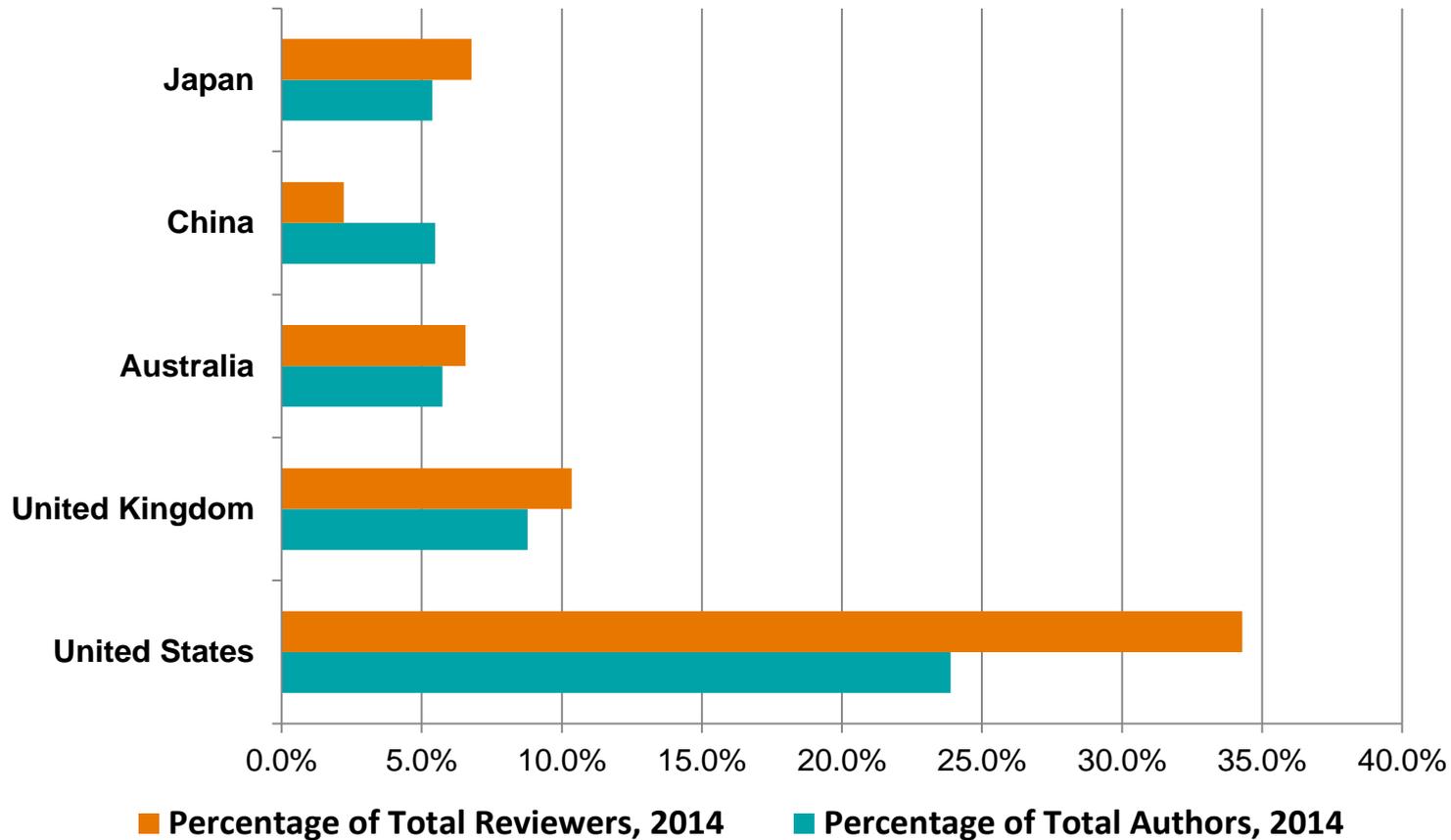
Who is feeling the pressure the most?

Life Sciences 2014



Who is feeling the pressure the most?

Health Sciences 2014





50% of
referees review
for
5 or more
journals

What editors care about

“I recently invited nine people to capture two reviewers...To address this problem, we need more reward options..”

1. Recruiting reviewers
2. Reviewer timeliness
3. Assessing, and rewarding, quality of review



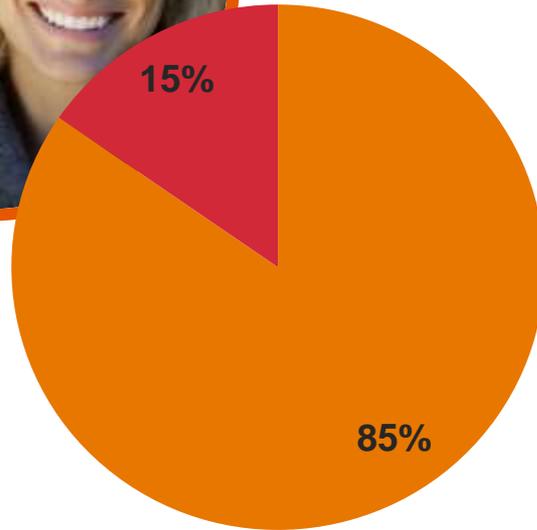


77% of
reviewers would
participate in
peer review
training sessions





Early career



Would you participate in future reviewer training sessions?

- Yes
- No

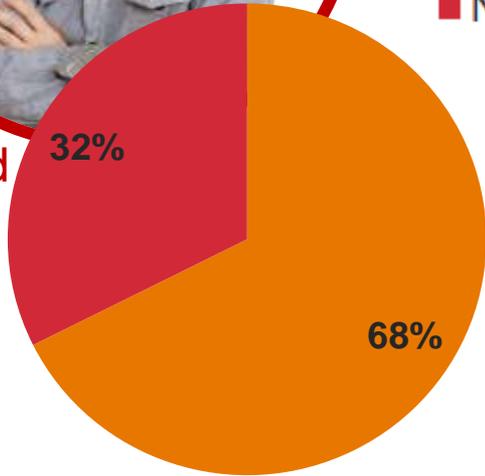
“I work hard with my own students to mentor them through their first review experiences, but, increasingly, I just don’t see that as the case with my peers. We need early career reviewer training to be part of Wiley’s publishing platform. ”

Roger Watson, EIC, Journal of Advanced Nursing

But, established researchers want training too



Established career



■ Yes
■ No

| | Early career | Established career |
|--|--------------|--------------------|
| Providing constructive, useful feedback | 270 | 150 |
| Constructing a review report | 241 | 134 |
| Handling plagiarism issues | 172 | 139 |
| Introduction to becoming a peer reviewer | 190 | 83 |
| Working with editors during the review process | 156 | 107 |

Usefulness of reviewer resources

1

Reading of journal level guidelines for reviewers

2

Guidance from my PI/Supervisor

3

Publisher guidelines and advice

4

Participation in reviewer mentoring scheme

5

Physical workshops/seminars on how to review



Early career

1

Reading of journal level guidelines for reviewers

2

Publisher guidelines and advice

3

Reading of general review ethics guidelines (e.g. COPE)

4

Participation in reviewer mentoring scheme

5

Physical workshops/seminars on how to review



Established career

Measuring reviewer performance

What does “good” look like?



“Scientific journal editors and peer reviewers are well placed to help to identify research reports that are not fit for purpose. The irony is that few editors and peer reviewers are adequately trained, and so they might find detection of inadequate reports difficult.”



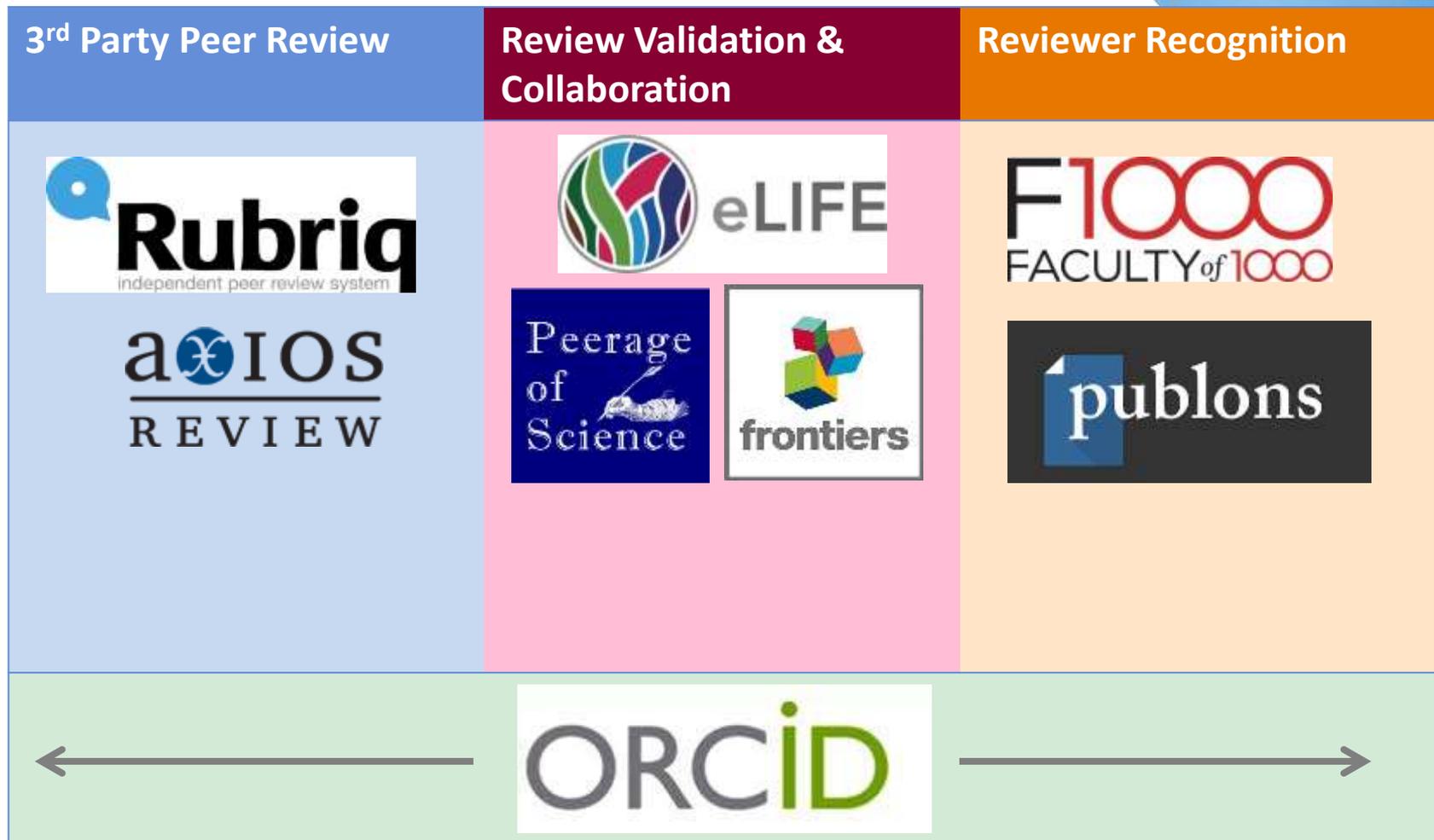
“ I have conducted hundreds of peer reviews in my 40-year career, and there is virtually no difference in the review experience from publisher to publisher and journal to journal.”

**Startups, Innovators
and Market Disrupters
are addressing
painpoints and
shifting expectations**

Types of Peer review

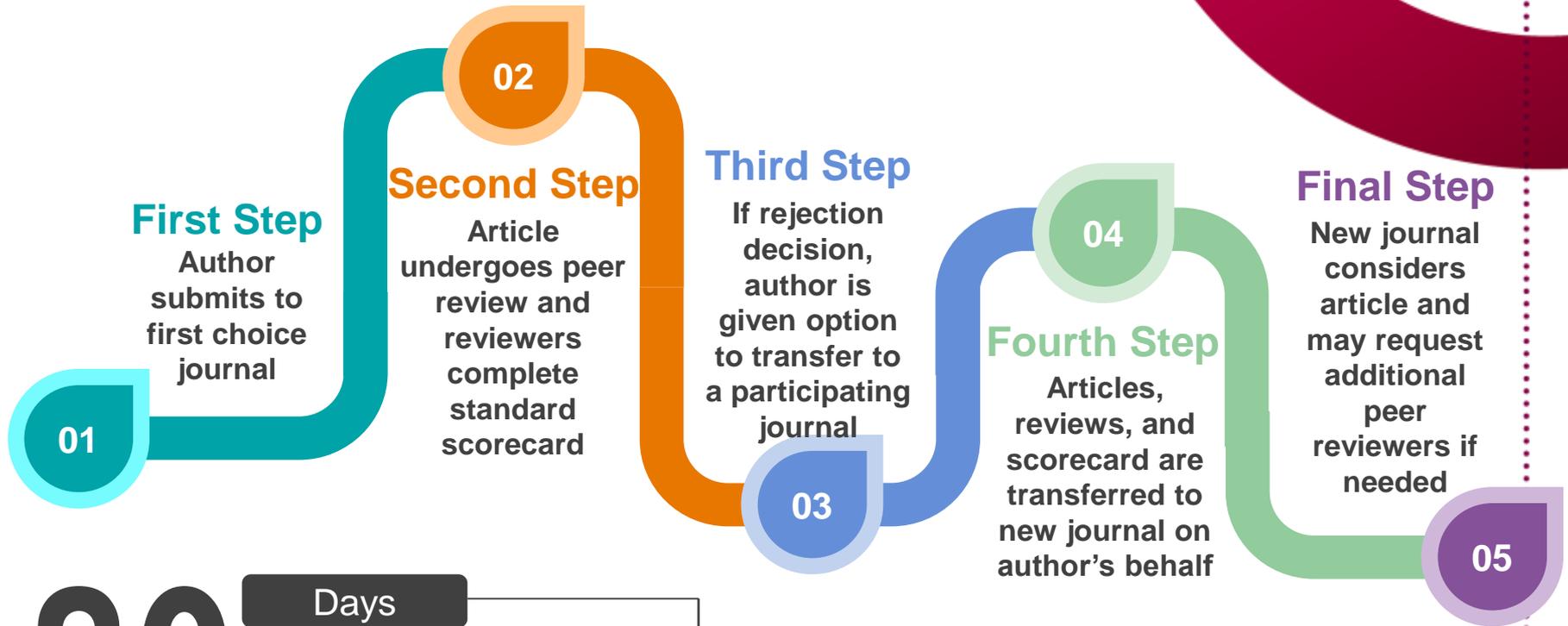
| | Modality | Pros | Cons |
|-------------|---|--|--|
| Traditional | Single-blind Author known Reviewer unknown | <ul style="list-style-type: none"> Encourages frank opinion No retribution from author | <ul style="list-style-type: none"> Reviewers may be unnecessarily critical Authors fear their work is purposefully delayed |
| | Double-blind Author unknown Reviewer unknown | <ul style="list-style-type: none"> Prevents bias | <ul style="list-style-type: none"> Author still identifiable (writing style, topic, citations) |
| Innovative | Open Author known Reviewer known | <ul style="list-style-type: none"> More honest (transparent) | <ul style="list-style-type: none"> Less honest (polite) |
| | Post-publication Everybody knows | <ul style="list-style-type: none"> Encourages further checks, dialog | <ul style="list-style-type: none"> Quality control of comments |

Other Peer Review Innovations



Transferable peer review

In use at more and more publishers



80

Days

Average length of time that review takes...and it starts all over again if the paper is rejected.

70

Percent

Acceptance rate of transferred papers for journals currently participating in the pilot program.

Transparency

- Open peer review
- Closed peer review

Submission process

- Direct to a journal
- To a 3rd party
- Transfer within “family”

Timing

- Pre-publication
- Post-publication

Peer review variables

Assessment of...

- Science only
- Science + novelty or impact

Decision process

- Independent review
- Interactive review
- Collaborative review

Reviewer selection

- Authors recruit reviewers
- Editors recruit reviewers
- Reviewers “bid” for papers

Today

Blinded peer review system prevails

Minimal recognition and reward for peer reviewers

Inefficient matching of reviewer-to-review task

Marginal data analytics for editor/reviewer performance benchmarking



Future

More author-driven peer review model choices

Robust reviewer recognition infrastructure

Better matching tools to find reviewers best-suited to review

Use of more technology to expedite reviewer tasks

Improved data analytics for benchmarking and reporting



Thank you