

Research Ideas and Outcomes

(R.I.O. Journal): A novel way to make
science

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Peer Review: a brief and, inevitably, incomplete history

- As old as human's communication
- Mostly dated with the advent of the scientific periodical (17th century)
- Spier (2002) sees its inception rather in the ...12th century with " Ethics of the physician " , a book by Ishak Bin Ali Al Rahwi (854-931 CE) of Al Raha, Syria.
- Has taken numerous forms
- Has taken off in its modern and known aspect mostly in the 20th century, and more precisely after WW II, and the ensuing information overflow

Biases: do we have to live with it ?

- PR has always been a fertile terrain of contentions between scholar because it is THE door to a number of advantages (promotions , prizes , financing and recognition)
- It serves as a sieve between what is good and bad (and all the variation in between)
- The ever decreasing number of space to publish has exacerbated the competition (*publish or perish*) and made it become rather nasty and sometimes even downright out of control.
- The reason : the way PR is undertaken (in SECRET)

Biases: do we have to live with it ?

(Part II)

- Secrecy = unaccountability , plagiarism, unethical behaviour, shenanigans and more.....
- Reason(s)  Biases (gender , ideological, national, religious , aesthetic , etc.....).
- Reviewer ("*linchpin about which the whole [PR]business is pivoted*" – Merton 1971) is protected and reviews knowing he is immune to any critic.
- Solution ? Open it all up !!! (to some extent)
- From single blind P.R. to double blind P.R.  More problems and no ready solution and could not be implemented across the board and in all domains .

The real solution ? Open it up, all the way !!!!!!!

- Internet advent and worldwide penetration (51.7 % -Internetworldstats) have ushered in an era of openness.
- *The Journal of Medical Internet Research (JMIR), Biology Direct, BMJ Rapid Responses, Atmospheric Physics and Chemistry (A.P.C.), Electronic Transaction on Artificial Intelligence (E.T.A.I.) and particularly Faculty of 1000 (F 1000)* have all championed a clear politic of open peer review where the whole process could be seen live on The Internet.

Research Ideas and Outcomes (R.I.O. Journal): taking openness to new heights



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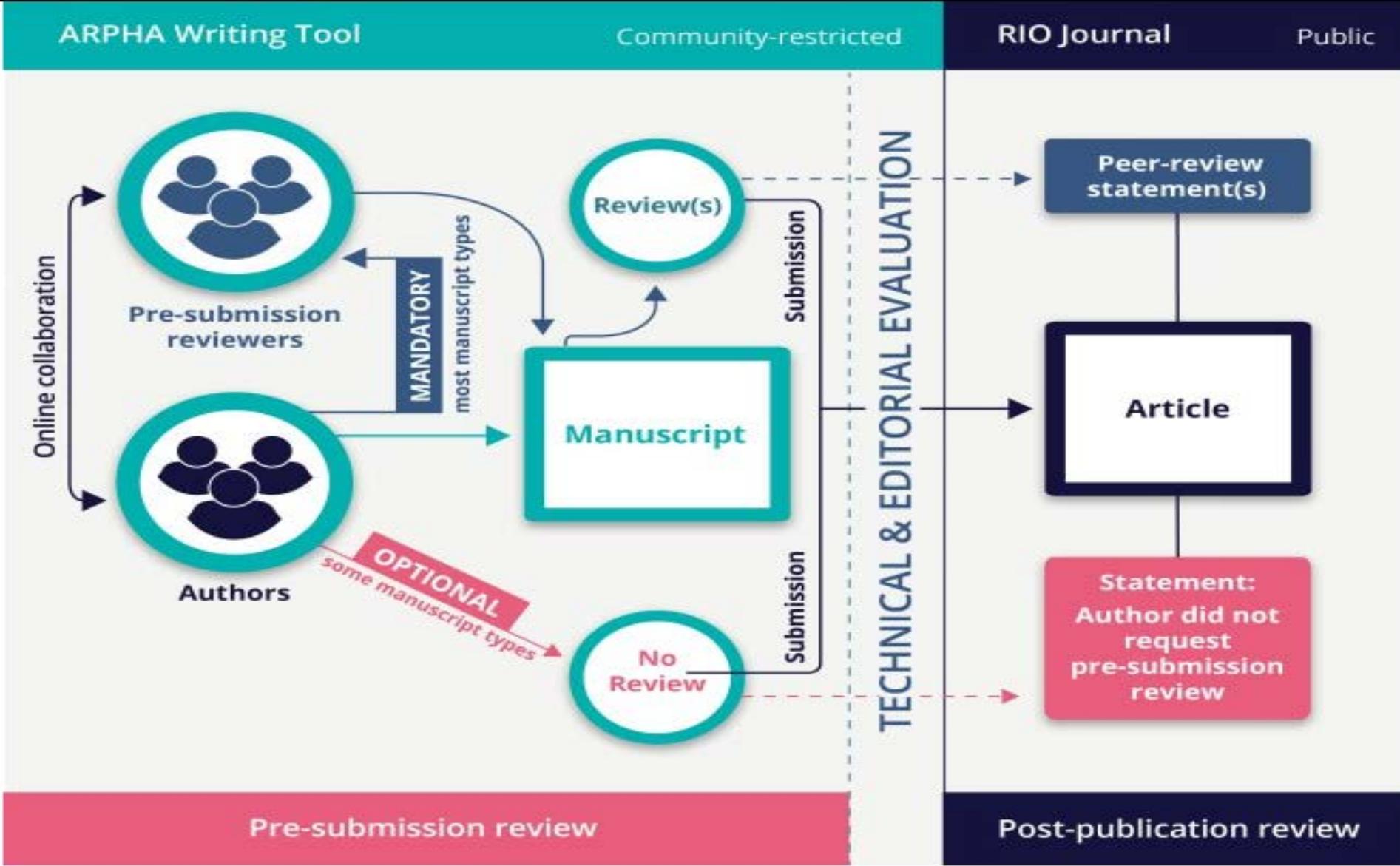
Research Ideas and Outcomes

(R.I.O. Journal): *Pre* and *Post* submission P.R.

- Proposal submitted and " written " collaboratively by author (s) and the *community* through the A.R.P.H.A. (**A**uthoring , **R**eviewing, **P**ublishing , **H**osting , **A**rchiving) Writing Tool .
- A.R.P.H.A.is a unique tool that allows to follow the submission from authoring through submission, peer-review, publication and dissemination, within a single online collaborative environment.
- Within the *ARPHA Writing Tool*, authors may work collaboratively on a manuscript with their co-authors, invite external contributors (among which *pre-submission reviewers*) or colleagues who may comment and enrich the manuscript *before* submission. These external contributors are not listed as co-authors of the manuscript.

RIO's Peer review scheme :

Part 1- Pre submission Peer review .



RIO's Peer review scheme :

Part 1- Pre submission Peer review

- Peer review *before* submission ????
- Yes, it is possible with the ARPHA Writing Tool
- Authors often ask colleagues to review and comment on their submission *prior* to submission ("*a pair of fresh eyes*") by sending them drafts to be appraised and reviewed informally (in paper or electronic form)
- ARPHA does just this by allowing the process to be done in a transparent and formal way. Instead of being done individually and revised and changed only by the authors, the work is done in a collaborative and user friendly way during the inception period.
- How is that ?

RIO's Peer review scheme :

Part 1- Pre submission Peer review

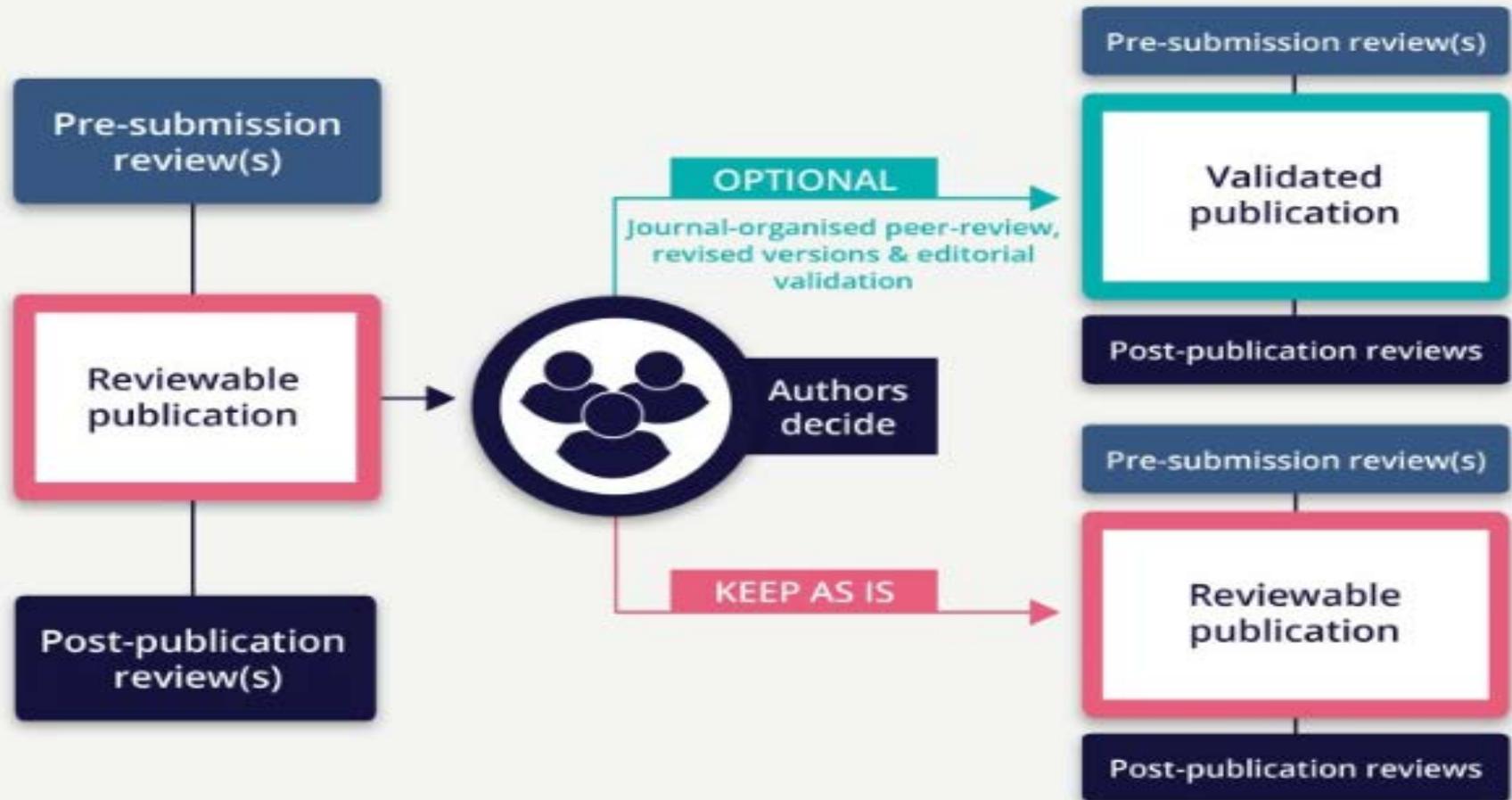
- ✓ Author(s) write or load his (her) submission on ARPHA
- ✓ Ask colleague (s) to make a basic assessment as to whether the work is worthy to be published (through Google Doc like fonctionnalités)
- ✓ Colleague(s) (*the pre-submission reviewer (s)*) log in to their accounts, read the work and then make a simple statement declaring the work worthy to be presented through RIO.
- ✓ Review and name of colleague (s) published with work after publication
- ✓ Even if *the pre-submission reviewer* accept it, RIO could prevent publication if it deems it pseudoscience, have unresolved ethical issues or not appropriate for an academic journal.

RIO's Peer review scheme :

Part 2- Post submission Peer review

RIO Journal

Public



Post-publication review

RIO's Peer review scheme :

Part 2- Post submission Peer review

- Post publication peer review is not new (*F 1000, BMJ, Biology Direct*) but RIO adds other original features.
- P.P.P.R. at RIO is the 3rd step after the *pre-submission peer-review* and *the technical and editorial evaluation in-house*
- Authors may request post publication peer-review and editorial validation by RIO
- Keep first version submitted and published after pre-submission review and technical/editorial checks.
- Authors can also request publication of revised versions and improve their works if post-publication reviews are negative.
- Finally only RIO Journal can approve publication once they deem enough positive feed back has been received

Conclusion

- Peer review , a cornerstone of scientific publication, has been, for years , at the center of an intensive battle between authors , editors and reviewers (which are incidentally one person assuming the different functions)
- Science having become progressively competitive , this battle has become a rather nasty business especially in the medical domain where a lot is at stakes
- Peer review assumes the " gatekeeping" function which makes so important and so sought after .
- It has evolved lately , thanks to the Internet, into more openness

Conclusion (cont'd)

- Different schemes have been implemented: open peer review (Journal of Medical Internet Research), authors chooses reviewers (Biology Direct), Post Publication Peer Review (F 1000), On line live discussion (Atmospheric Chemistry and Physics-A.C.P.) , no review at all (Philica – The instant, open-access Journal of Everything or " wisdom of the crowds "), etc
- R.I.O. has pushed the openness limit to the inception of the research making it open to the community at large (instead of chosen colleagues) and in an open manner.
- Still RIO's editorial board keeps the final decision if the reserach is published or not which keeps the traditionnal touch to R.I.O.

Is this the P.R. we want ?

SPOTON[2016]

WHAT MIGHT PEER REVIEW LOOK LIKE IN 2030?

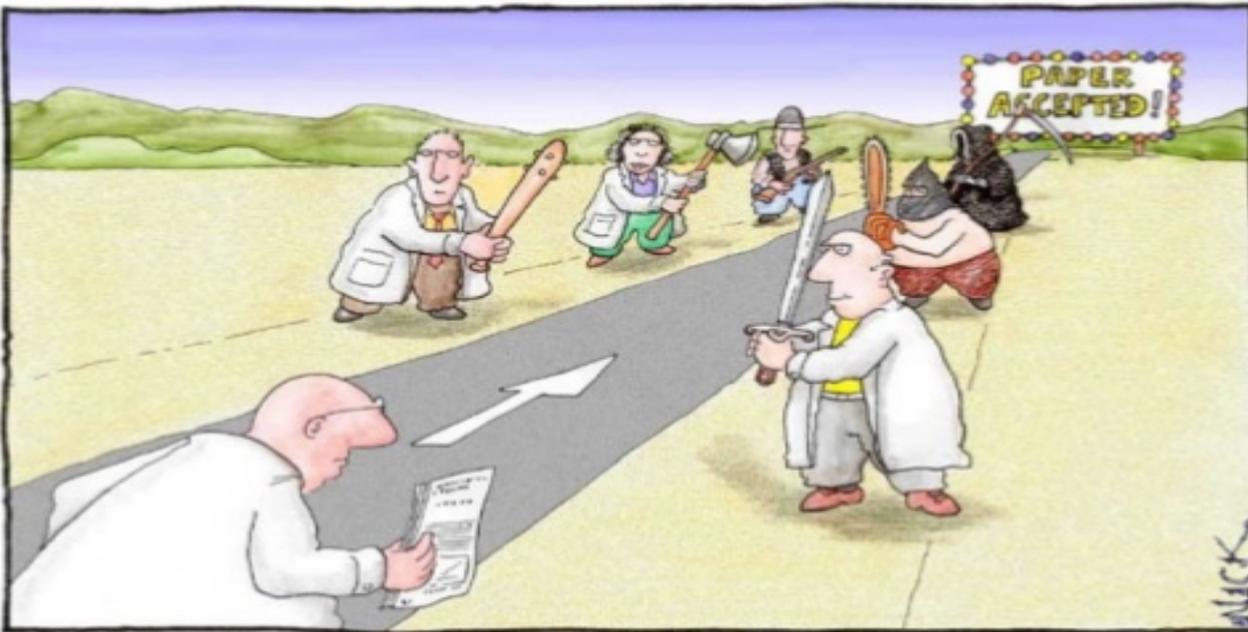


Conclusion ?



Conclusion ...end ?

Peer Review



Most scientists regarded the new streamlined peer-review process as 'quite an improvement.'

Pamela A. Bentley

PhD Student

February 10, 2012

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