I, Cheol-Heui YUN, serve in the following roles, but, no potential conflict of interest to disclose.
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- Background
- Issues with publication ethics
- Importance of the policy
- Review process in principle
- Ethical guidelines for peer reviewers
  - Being a Reviewer
  - Conducting a review
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  - After peer review
- Conclusion
[WHY?] Publication Job/Promotion/Honor/Incentive

Research Misconduct

Open access vs. Predatory act (publisher) and Paper mills

APC (article processing charge)
Authorship
Impact factor
Publisher retracts 350 papers at once

IOP Publishing has retracted a total of 350 papers from two different 2021 conference proceedings because an “investigation has uncovered evidence of systematic manipulation of the publication process and considerable citation manipulation.”
A look at the first three titles suggests that they were, indeed, far out of scope:

- Research on the evolution of urban design from the perspective of public health under the background of the COVID-19
- The rationality of physical fitness evaluation index for cardiorespiratory fitness in medical system
- Role of foreign direct investment – As a strategic move towards growth, economic integration and development

According to The International Journal of Electrical Engineering & Education:

include but are not limited to [1] submission patterns consistent with the use of paper mills, [2] collusion between authors and reviewers during the review process, [3] inappropriate subject matter as compared to the Journal’s Aims and Scope, poor quality peer review and requests for inappropriate citation.
Special Issues increase at all journals, in some cases exponentially. Some have unbelievably high number of SIs. In March 2021, Sustainability had 3303 open Special Issues (compared to 24 normal issues). These are 9 SIs per day, just for Sustainability. 32 MDPI journals have more than 1 open SI in 2021 per day, including Saturdays and Sundays.

Is MDPI a predatory publisher? Paolo Crosetto

https://paolocrosetto.wordpress.com/2021/04/12/is-mdpi-a-predatory-publisher/
The second shift is ongoing and relates to the open access (OA) business model. Just to be clear, this is a business model. **OA is not about ethics and morality; it is a business model in scholarly publishing.** With the announcement that research funded by public grants in Europe will be required to be published in fully OA journals by 2020 ([https://www.scienceeurope.org/coalition-s/](https://www.scienceeurope.org/coalition-s/)), I wonder if the implications of this edict are understood.

**Open access is not enough. We need open equity**

Publishers, libraries and funders must do what they can to ensure that no one is priced out of open-access publishing, says Mandy Hill

April 15, 2023, [Mandy Hill](https://www.scienceeurope.org/coalition-s/)
More than 40 leading scientists have resigned en masse from the editorial board of a top science journal in protest at what they describe as the “greed” of publishing giant Elsevier. The entire academic board of the journal *Neuroimage*, including professors from Oxford University, King’s College London and Cardiff University resigned after Elsevier refused to reduce publication charges. Academics around the world have applauded what many hope is the start of a rebellion against the huge profit margins in academic publishing, which outstrip those made by Apple, Google and Amazon. *Neuroimage*, the leading publication globally for brain-imaging research, is one of many journals that are now “open access” rather than sitting behind a subscription paywall. But its charges to authors reflect its prestige, and academics now pay over £2,700 for a research paper to be published. The former editors say this is “unethical” and bears no relation to the costs involved.

Elsevier, a Dutch company that claims to publish 18% of the world’s scientific papers, reported a 10% increase in its revenue to £2.9bn last year. But it’s the profit margins, nearing 40%, according to its 2019 accounts, which anger academics most. The big scientific publishers keep costs low because academics write up their research typically funded by charities and the public purse – for free. They “peer review” each other’s work to verify it is worth publishing for free, and academic editors collate it for free or for a small stipend. Academics are then often charged thousands of pounds to have their work published in open-access journals, or universities will pay very high subscription charges.

Stephen Smith, professor of biomedical engineering at Oxford University and formerly editor-in-chief at *Neuroimage*, said: “Academics really don’t like the way things are, but individuals feel powerless to get the huge publishers to start behaving more ethically.”
Clarivate announced the exclusion of 82 journals (SCIE) from the Web of Science core collection. This also means that these de-listed journals lost their Impact Factor.

- International Journal of Environmental Research and Public Health
- Journal of Risk and Financial Management

19 Hindawi journals delisted

Clarivate’s delisting of academic publications will send a message that research integrity is paramount, says campaigner

Jack Grove, Twitter: @jgro_the

Ok this is big.

Web of Science just removed the MDPI flagship journal IJERPH from their lists. This means IJERPH has no more an Impact Factor.

Why is this big? What are the implications?

PRINCIPLES OF TRANSPARENCY AND BEST PRACTICE IN SCHOLARLY PUBLISHING

The Committee on Publication Ethics (COPE), the Directory of Open Access Journals (DOAJ), the Open Access Scholarly Publishing Association (OASPA), and the World Association of Medical Editors (WAME) are scholarly organisations that have collaborated to identify principles of transparency and best practice for scholarly publications. This is the fourth version of a work in progress (published September 15 2022). We encourage its wide dissemination.

Version 4.0 – SEP 2022
Version 3.0 – JAN 2018
Version 2.0 – JAN 2015
Version 1.0 – DEC 2013

©2022 COPE DOAJ OASPA WAME. (CC BY-NC-ND 4.0)
Importance of the policy

PRINCIPLES OF TRANSPARENCY AND BEST PRACTICE IN SCHOLARLY PUBLISHING – OVERVIEW

<table>
<thead>
<tr>
<th>JOURNAL CONTENT</th>
<th>JOURNAL PRACTICES</th>
<th>ORGANISATION</th>
<th>BUSINESS PRACTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A journal’s name is unique</td>
<td>The website protects users and has high professional standards</td>
<td>Journals clearly state ownership and management</td>
<td>Any charges relating to manuscripts are clear to authors</td>
</tr>
<tr>
<td>The publishing schedule is clear and kept to in practice</td>
<td>Preservation of the journal content is clearly indicated</td>
<td>Editorial board members are experts in the journal’s subject area</td>
<td>Journals have a transparent advertising policy</td>
</tr>
<tr>
<td>Copyright terms for published content are clear</td>
<td>Licensing information is in the policy and on published articles</td>
<td>Journals provide contact information and full editor details</td>
<td>Marketing to authors is appropriate, targeted, and unobtrusive</td>
</tr>
<tr>
<td>Charges or registration required for access to articles are clear to readers</td>
<td></td>
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</table>
Importance of the policy

8. Peer review

Peer review is defined as obtaining advice on manuscripts from reviewers/experts in the manuscript's subject area. Those individuals should not be part of the journal's editorial team. However, the specific elements of peer review may differ by journal and discipline, so the following should be clearly stated on the website:

- Whether or not the peer review is anonymous.
- Who conducts the review.
- The type of reviews.

Any policies related to the peer review procedures (https://cope.oni/peer-review-2), for example:

- Use of author recommended reviewers.
- Any masking of identities, and if so who is masked and to whom.

If an article's peer review is an exception to the usual policy, the article should state what review it received.

Journals should not guarantee acceptance of initial manuscript submissions. Statements of peer review times should be supported by published timeframes on accepted papers. In the event of delays, authors should be informed of the reason for the delay and given the opportunity to withdraw their manuscript if they wish.

The date of publication should be published with all published research. Dates of submission and acceptance are preferred as well.
The initial list of 50 papers under investigation expanded to more than 300 submissions received since 2020 – about 100 of them already published – with concerns about improper authorship and conflicts of interest that compromised peer review.

Systematic manipulation of the publication process
DOI: https://doi.org/10.24318/cope.2019.2.23

https://retractionwatch.com/2022/08/03/exclusive-plos-one-to-retract-more-than-100-papers-for-manipulated-peer-review/
Elsevier retracting 500 papers for shoddy peer review

James Heathers “found at least 1,500 off-topic papers, many with abstracts containing ‘tortured phrases’ that may have been written by translation or paraphrasing software, and a few with titles that had been previously advertised with author or positions for sale online.”

This article has been withdrawn as part of the withdrawal of the Proceedings of the International Conference on Emerging Trends in Materials Science, Technology and Engineering (ICMSTE2K21). Subsequent to acceptance of these Proceedings papers by the responsible Guest Editors, Drs. S. Sakthivel, S. Karthikeyan and I. A. Palani, several serious concerns arose regarding the integrity and veracity of the conference organisation and peer-review process. After a thorough investigation, the peer-review process was confirmed to fall beneath the high standards expected by Materials Today: Proceedings.

Elsevier’s Catriona Fennell wrote:
In confidence, we also have an active investigation of several conferences/proceedings published in Materials Today Proceedings, where we have evidence that the peer review process was faked. We suspect some conferences may have never taken place (even virtually) and we are currently gathering evidence to support that suspicions. We have not started manual checking the content of papers yet on an individual article level.
Review process in principle
Pre-publication vs. Preprints

Pre-publication (With peer review)

Preprints (Without peer review)

Preprints servers allow transfer to peer-review journal submission sites (Science, PNAS, PLOS, BMC, Genetics, etc.)

What is peer review?

Peer review (definition) (noun) evaluation of scientific, academic, or professional work by others working in the same field. (verb) subject (someone or something) to a peer review.

Why peer review?

1. It acts as a filter to ensure that only high quality research is published, especially in reputable journals, by determining the validity, significance and originality of the study.
2. It is intended to improve the quality of manuscripts that are deemed suitable for publication. Peer reviewers provide suggestions to authors on how to improve the quality of their manuscripts, and also identify any errors that need correcting before publication.

# Models of peer review

<table>
<thead>
<tr>
<th>TIMING</th>
<th>PrePrints</th>
<th>Pre-publication</th>
<th>Post-Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDENTIFIABILITY</td>
<td>Double blind</td>
<td>Single blind</td>
<td>Open</td>
</tr>
<tr>
<td>MEDIATION</td>
<td>Editors mediate all interactions between reviewers and authors</td>
<td>Reviewers interaction with each other openly</td>
<td>Reviewers and authors all interact with each other openly</td>
</tr>
<tr>
<td>PUBLICATION</td>
<td>Peer reviews are not published</td>
<td>Peer reviews are published but not signed</td>
<td>Peer reviews are published and signed</td>
</tr>
<tr>
<td>FACILITATION</td>
<td>Review facilitated by a journal</td>
<td>Review facilitated by a third-party</td>
<td>Review facilitated by authors</td>
</tr>
<tr>
<td>OWNERSHIP</td>
<td>Review owned by a journal or third party</td>
<td>Review owned by the authors of the reviews</td>
<td>Shared or mixed ownership of reviews</td>
</tr>
</tbody>
</table>

Reviewers should understand their responsibilities related to **confidentiality** of the process and **ownership of the review product** based on the model of peer review being used.

[QUT, Australia]
**Article Submission**

Basic check on each submission to ensure that all policies are adhered to.

**Publication & Data Deposition**

Editorial staff pre-publication checks (iThenticate, COPE, FAIR)

Article (with its source data) is published within a week, enabling immediate viewing and citation.

56% reject

**Open Peer Review & User Commenting**

Expert referees are selected and invited.

Their names, affiliation and reports are published alongside the article.

Together with the authors’ responses and comments from registered users.

**Article Revision**

Authors could publish revised versions. All versions of an article are linked and independently citable.

Articles that pass peer review are indexed in external databases such as PubMed, Scopus and Google Scholar.

[Rebecca Lawrence, Managing Director of F1000]
Decision letter

Arup K Chakraborty  
Senior Editor; Massachusetts Institute of Technology, United States

Richard A Neher  
Reviewing Editor; University of Basel, Switzerland

Richard A Neher  
Reviewer, University of Basel, Switzerland

Mark Zanin  
Reviewer, St. Jude's Children's Hospital, United States

In the interests of transparency, eLife includes the editorial decision letter, peer reviews, and accompanying author responses.

In the interests of transparency, eLife includes the editorial decision letter and accompanying author responses. A lightly edited version of the letter sent to the authors after peer review is shown, indicating the most substantive concerns; minor comments are not usually included.

Thank you for submitting your article "Influenza A virus surface proteins are organized to help penetrate host mucus" for consideration by eLife. Your article has been reviewed by three peer reviewers, including Richard A Neher as the Reviewing Editor and Reviewer #1, and the evaluation has been overseen by Arup Chakraborty as the Senior Editor. The following individual
The eLife is pleased to announce a major change in editorial practice. Building on its 2021 shift to exclusively reviewing preprints, the organisation is ending the practice of making accept/reject decisions following peer review. From January 31, 2023, eLife will instead publish every paper it reviews as a Reviewed Preprint, a new type of research output that combines the manuscript with eLife’s detailed peer reviews and a concise assessment of the significance of the findings and quality of the evidence.

Post Decision | Posting Public Reviews After Peer Review: Unless we have agreed with you otherwise, the public reviews will be posted to a preprint server using a Public Domain Dedication, which allows them to be freely reused by anyone for any purpose. Authors may choose to delay having the public reviews posted.
eLife’s peer review process

Submission
- Posting a preprint
- Sending for peer review

Peer Review
- eLife assessment
- Publication fee

Reviewed Preprint
- Author revisions
- Updates to peer reviews and assessments

Version of Record
- Publishing with another journal
Peer Review for Open Science
Virtual on-line Live
OCT 20, 2023

Ethical guidelines for peer reviewers
Being a reviewer

- **Professional responsibility**
  authors who have benefited from the peer review process should consider becoming peer reviewers as a part of their professional responsibilities.
  editors must match reviewers with the scope content in a manuscript.
  potential reviewers should provide journals with professional information that is accurate agree to review only if you have the necessary expertise to assess the manuscript.

- **Competing interests**
  ensure to declare all potential competing, or conflicting interests.
  could be personal, financial, intellectual, professional, political, religious.
  should not agree to review when you have employed at the same institution as of the authors.
  should not agree when you have been recent (e.g., within the past 3 years) mentors, mentees, close collaborators or joint grant holders.

- **Timeliness**
  agree to review only if you are able to review within the proposed or mutually agreed time-frame.
  inform the journal promptly if your circumstances change.
  if not possible, it is helpful to make suggestions for alternative reviewers.
Conducting a review

- **Initial steps**
  - read the manuscript, supplementary data files and ancillary material **thoroughly**.
  - understand the scope of the review before commencing.
  - ask if anything is not clear and requesting any missing or incomplete items you need.
  - do not contact the authors directly without the permission of the journal.

- **Confidentiality**
  - refrain from using information obtained during the peer review process.
  - do not involve anyone else in the review of a manuscript (without permission).
  - names of any individuals who have helped should be included.

- **Bias and competing interests**
  - important to remain unbiased (nationality, religious or political beliefs, gender, or other characteristics of the authors).
  - if a competing interest is discovered, notify the journal and seek advice.
  - notify the journal if you don’t have the expertise to assess the relevant aspects of a manuscript.
Conducting a review

- **Suspicion of ethics violations**
  
  any **irregularities** with respect to **research and publication ethics** should be noticed to the journal. **contact the editor** directly (for any ethical concerns) and do not attempt to investigate on your own (unless asked by journal).
  
  appropriate to cooperate, in confidence, with the journal.

- **Transferability of peer review**
  
  also called portable or cascading peer reviews
  
  publishers may have **policies related to transferring peer reviews to other journals** in the publisher’s portfolio.
  
  if a manuscript is rejected from one journal and **submitted to another**, be prepared to **review the manuscript afresh** as it may have changed between the two submissions and the journal’s criteria for evaluation and acceptance may be different.
  
  appropriate to **provide original reviews** for the new journals (efficiency and transparency point of view);
  **permission may require** from the original journal.
Preparing a report

▪ **Format**
follow the journal’s instructions for writing and posting the review.
use the tools supplied by the journal when required.
provide feedback that will help the authors to improve their manuscript.
be professional and refrain from being hostile or inflammatory.

▪ **Appropriate feedback**
editor requires a fair, honest and unbiased assessment of the strengths and weakness of the manuscript.
the journal may ask for a recommendation to accept, revise, reject.
indicate which aspects of the manuscript you have assessed.
ensure your comments and recommendations for the editor.

▪ **Language and style**
do not attempt to rewrite the paper to your own preferred style, only suggest necessary and deal with science.
be aware of the sensitivities surrounding language issues that are due to the authors.
Suggestions for further work

the reviewer should comment and explain what additional analyses would clarify the work (when the work is not clear because of missing analyses). It is not the job of the reviewer to extend the work beyond its current scope.

Accountability

prepare the report by oneself.
refrain from making unfair negative comments or including unjustified criticisms.
do not intentionally prolong the review process.
What to consider after peer review

- accommodate requests from journals to review revisions or resubmissions of manuscripts.
- respond promptly if contacted by a journal about matters related to your review.
- contact the journal if anything relevant comes to light.
- continue to respect the confidential nature of the review process.
Conclusion
Peer reviewers
- ✓ play an essential role in ensuring the integrity of the scholarly record.
- ✓ have an obligation to conduct reviews in an ethical and accountable manner.

Peer review process
- ✓ depends to a large extent on the trust and willing participation of the scholarly community
- ✓ requires that everyone involved behaves responsibly and ethically.

Journals
- ✓ have an obligation to provide transparent policies for peer review
- ✓ clear communication between the journal and the reviewers is essential to facilitate consistent, fair and timely review.
The critical role of peer reviewers: Challenges and future steps

Challenges associated with peer review

Anonymity
Limited pool of reviewers
No systemic self-reflection practices
Reviewer selection and epistemic considerations

Motives and incentives for peer-review activities
- Not necessarily “unpaid” (is best choice)
- Motives become less relevant as one’s academic career progresses, including ..
  - Awareness of colleagues’ work lines[Col issue]
  - Quid pro quo: “They will review mine if I review theirs”
  - Interest in becoming an Editor.

Reviewer recognition
Predatory publications and conferences

New business models [for instance, MDPI]
Research assessment exercises and journal metrics
Epistemic diversity and systemic issues

Recommendations
Supporting reviewers
Valuing reviewers
Reviewer training and raising awareness of predatory journals
Awareness of the evolution of other disciplines: OA, AI
International boards
Ask the Chefs: What is the Single Most Pressing Issue for the Future of Peer Review?

BY KARIN WULF, RICK ANDERSON, LISA JANICKE HINCHLIFFE, HONG ZHOU, AVI STAIMAN, ALICE MEADOWS, HASEEB IRFANULLAH, ANGELA COCHRAN, CHARLIE RAPPLE | SEP 22, 2023

Striking a Balance: Humans and Machines in the Future of Peer Review and Publishing

BY CHHAVI CHAUHAN, CHIRAG JAY PATEL | SEP 28, 2023

Ending Human-Dependent Peer Review

BY HASEEB IRFANULLAH | SEP 29, 2023

AI beats human sleuth at finding problematic images in research papers

BY ANIL OZA | 03 OCTOBER 2023

An algorithm that takes just seconds to scan a paper for duplicated images racks up more suspicious images than a person.
“Real integrity is doing the right thing, knowing that nobody’s going to know whether you did it or not.”
– Oprah Winfrey

No matter how educated, talented, rich, or cool you believe you are, how you treat people ultimately tells all. Integrity is everything.
To review, or not to review?

5 questions to ask yourself before deciding to review:

1. Can I meet the deadline?
   - Can you realistically digest the paper and formulate thorough feedback before the due date? As an editor, you will always appreciate a submission received but not all will delay the publication of their work.

2. Does this paper focus on a topic within my area of expertise?
   - Remember, specialists and generalists both have roles to play within the review process. Could this review provide valuable insights?

3. Do I know my own limitations within the field?
   - When writing a review is unprofessional, it’s often due to a reviewer being unaware of the gaps in their own knowledge. It’s important to be honest with yourself. Are you well-informed enough to offer useful feedback?

4. Do I have a neutral attitude toward the author(s)?
   - If your relationship with them may influence your review, you should decline the invitation. Similarly, if you have read a pre-submission draft of the manuscript, it may also contribute to bias.

5. Do I know a suitably qualified colleague?
   - Supporting an alternative to the editor when declining an invitation can help fellow academics to collect reviews for their works.

*NOTE
You will not know the name of the author if you are undertaking a review for a journal with a double-blind peer review process. However, you should contact the editor if you suspect you know the identity of the author.

Now you’ve made your decision – let the journal know quickly! Whether you plan to accept the invitation or decline it, the journal will be very grateful for a prompt response.

Go to WileyPeerReview.com for more information on successful reviewing.
Peer review training and mentoring

- take advantage of opportunities to enroll in mentorship or training programs to improve your peer review skills.
- offer to mentor early career researchers as they learn the peer review process.
- it is helpful to read the reviews from the other reviewers, if provided.
- [Sense about Science](https://senseaboutscience.org/activities/peer-review-the-nuts-and-bolts/) have a helpful guide for peer review written for early career researchers:
- training courses are available for those starting out in peer review; Publons provide a free online training course: [https://publons.com/community/academy/](https://publons.com/community/academy/).
Peer review training and mentoring

- **training courses** are available for whom in peer review;

### Peer Reviewers

**SPRINGER NATURE**

![Springer](https://www.springer.com/gp/authors-editors/authorandreviewertutorials/howtopeerreview)

**BioMed Central**

The Open Access Publisher

**nature**

MASTERCLASSES

#### The modules

- **Your role as a peer reviewer** | 0h40 | 10 lessons
- **The peer review report** | 1h10 | 16 lessons
- **Ethics in peer review** | 0h50 | 10 lessons
- **Variations and innovations in peer review** | 0h50 | 10 lessons

[https://www.biomedcentral.com/getpublished/peer-review-process](https://www.biomedcentral.com/getpublished/peer-review-process)

How to recognize potential authorship problems

Best Practice to Minimise Authorship Problems

1. **SUBMIT**
   - Adopt policies that allow for transparency around who contributed to the submitted work and in what capacity

2. **ENCOURAGE**
   - Facilitate awareness of emerging standards eg, ORCID and CRediT

3. **BEHAVIOUR**
   - Check for unusual patterns of behaviour which may suggest authorship problems

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