How to successfully contribute to the world of scientific publishing

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U of I, Urbana-Champaign - July 17th, 2019
Publish or Perish or is it Publish until you Perish?

The (self) imposed pressure to publish
The “ground rules” of scientific publishing

https://www.publishingcampus.elsevier.com/pages/63/ethics/Publishing-ethics.html

(Good) science
Science ethics
Authorship
Ownership of material
Conflict of interest
Publishing ethics
Salami publishing
Duplicate submissions
Fair peer reviewing
Research fraud
Publishing in the 21st century – the publishing circle

- 600,000 authors
- 7,000 editors
- 18 new journals per year

- 800,000+ article submissions per year

- 12 million articles now available

- 30 Million Researchers
  - 180+ countries
  - 4,500+ institutions
  - 480 million+ downloads per year

- 40 – 90% of articles rejected

- 350,000 new articles produced each year
- 185 years of back issues scanned, processed and data-tagged
Stakeholders in the publishing circle

They all have a responsibility in the process

1) Funding “agency”
2) Academic institution
3) Author and co-authors
4) Publisher
5) Editor
6) Reviewers
7) Libraries
8) Readers

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How to publish in a scientific journal

Becoming the (first) author of a manuscript

- What steps do I need to take before I write my paper?
- Type of manuscript
- How can I ensure I am using proper manuscript language?

- How do I structure my article properly?
  - Process
  - Article Construction
Publishing a paper: step 1

Choosing the right journal!

A journal always has an “Aims and Scope”, a text that describes the goal of the journal:

- Subject
- Audience
- Type of articles
- Quality or coverage of field
- Association with group
The right journal – only the best for you

The role of quality indicators

- Quality of journal can be reflected by its impact factor (IF): the average number of times articles from a journal published in the past two years have been cited in the current year

- Example: IF of a journal in 2017:

\[
\text{IF} = \frac{\text{All citations in 2017 to articles published in 2015 and 2016}}{\text{Number of source items published in 2015 and 2016}}
\]

\[
\frac{1339 + 1467}{350 + 462} = \frac{2806}{812} = 3.456
\]
Publishing a paper: Step 2 prepare the paper

Mindset as an author

- Author (you)
- Editor
- Reader
- Reviewer
Publishing – what constitutes a strong paper?

- Has a clear, useful, and exciting message
- Presented and constructed in a logical manner
- Reviewers and editors can grasp the significance easily

Editors and reviewers are all busy people – make things easy to save their time
Decide the most appropriate type of manuscript

The many flavours of paper types

- Conference Papers
- Short communications/letters
- Full articles/Original articles
- Review papers (often only by invitation)
- Perspective papers (often only by invitation)
General structure of a research paper

Title
Affiliations
Abstract
Keywords

Introduction
Methods
Results
AND Discussion

Conclusion
Acknowledgements
References
Supporting Materials
Building the manuscript – bottom up

Title & Abstract

Conclusion

Introduction

Methods

Results

Discussion

Figures/Tables (your data)
Preparing for submitting the paper

- Check the manuscript as thoroughly as possible before submission
- Ask colleagues and supervisors to review your manuscript

Finally - SUBMIT your manuscript with a proper cover letter and await a response…
After submission – the waiting game

- Generally editors do a first check (topic, language, completeness,...). They are allowed to desk-reject.

- After initial check, they will send out for review, usually to a few reviewers. Review process takes several weeks. Many invited reviewers decline invitation, adding to review times.

- Editor receives reviewer reports and takes a decision based on them.

- In case of doubt, they may consult another referee or review themselves.

- Editor informs author
Editorial decision

Accepted
• Very rare, but it happens

Revision major/minor
• There is a chance that the paper will be published eventually

Rejected
• Probability 40-90% ...
• Do not despair
• If you submit to another journal, begin as if it were a new manuscript
Editor decision: revision (minor/major)

- Carefully study the reviewers’ comments, adjust your manuscript and prepare a detailed letter of response.

- Respond to all points; even if you disagree with a reviewer. Provide a scientifically solid rebuttal, not ignore their comment.

- State specifically what changes you have made to address the reviewers’ comments, mentioning the page and line numbers where changes have been made.

- Perform additional experiments, calculations or computations, if required; these usually serve to make the final paper stronger.
The article of which the authors committed plagiarism: it won’t be removed from ScienceDirect. Everybody who downloads it will see the reason of retraction...
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Why do we need peer-review?

Peer review is the evaluation of work by one or more people of similar competence to the creators of the work (peers).

Peer-review is used to assess the quality, significance and originality of scientific research before publication.

- provide credibility
- improve the record of science
- control in scientific communication
- ensures that previous work is acknowledged
Step by Step

A guide how to become a good peer reviewer

Before accepting the invitation, you should ask yourself

- Am I truly a peer, i.e., do I have the necessary expertise in the field
- I don’t have a possible conflict of interest
- Will I be able to make the review in time

If the answer to all of the above is yes, then you should accept the invitation to review
So why should I be a reviewer

It takes valuable time away from my own science, right?

✓ Academic duty – expect to review about two times as many papers as you publish yourself
✓ Access to new results prior to publication
✓ Networking within the scientific community
✓ Influence on the science and scientific quality
✓ Recognition by (some) governments
✓ Access to Scopus/Science Direct for a month (Elsevier specific)
General impression and abstract

- Look at the manuscript as a whole
  - General comprehension of the manuscript
  - Language/style/grammar
  - Structure
  - Reviewer’s general level of enthusiasm

- Is the Abstract included?
  - Is it a real summary of the paper?
  - Does it include the key results
  - Does it contain unnecessary information?
  - Is it too long? Journals set a limit for the number of words
Introduction

- Is it effective, clear, and well organized?
- Does it really introduce and put into perspective what follows?
- Suggest changes in organization and point authors to appropriate citations if necessary
- Be as specific as possible when giving feedback
  - Don’t just write “the authors have done a poor job”
Assessing the methodology

- Would a colleague be able to reproduce the experiments and get the same outcome?
- Is the description of new methodology complete and accurate?
- Did the authors include proper references to previously published methodology?
- Is the sample size large enough and was it selected in an appropriate way?
- Was the data collected in accordance with accepted practice?
- Could or should the authors have included supplementary material?
Results and discussion

- Suggest improvements in the way data is shown
- Comment on general logic and on justification of interpretations and conclusions
- Comment on the number of figures, tables, and schemes
- Write concisely and precisely which changes you recommend
- List suggested style/grammar changes and other small changes separately
- Suggest additional experiments or analyses
- Make clear the need for changes/updates
- Ask yourself whether the manuscript is worth being published
Assessing the conclusions

- Comment on importance, validity, and generality of conclusions
- Request toning down of unjustified claims and generalizations
- Request removal of redundancies and summaries
- The Abstract, not the Conclusion, summarizes the study
References, tables, and figures

- Check accuracy, number, and appropriateness of citations
- Comment on tables and figures, and their quality and readability
- Comment on any footnotes
- Assess completeness of legends, headers, and axis labels
- Comment on need for color in figures
- Check presentation consistency
Tools for reviewers (and editors)

For Editors

- Plagiarism detection tool at time of submission
- Tool based on Scopus database to identify potential reviewers

For Reviewers

- Free access to *All content published by Elsevier*
- Free access to *The world's largest abstract and citation database*
- Reference-linking and resolution in PDF of the manuscript
Editors’ view: what makes a good reviewer?

- Provides an objective, thorough, and comprehensive report
- Provides well-founded comments for authors
- Gives constructive criticism
- Provides a clear recommendation to the Editor
- Submits the report on time
Elsevier Publishing Campus

Packed with free online lectures and interactive courses, together with expert advice and resources to help on your way to publishing a world-class book or journal article.

College of Skills Training
Boost your publishing skills in journals and books

College of Big Ideas
Discuss trending topics in publishing and academia

College of Networking
Make the most of every opportunity

College of Research Solutions
Training for effective and efficient research skills

College of Career Planning
Get ahead in your academic career

College of Recommended Organizations
Reach your potential with support from global resources

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