How to Get Your Article Published

Columbia University
April 7, 2014

Lily Khidr, PhD
Publisher

Ann Gabriel
Publishing Director
Outline

- Who we are
- What does the Publisher Do?
- What does the Editor Do?
- What does the Author Do?
- What not to do...
- Who sees it? - Access
- What makes it better - Innovation
Dr. Lily Khidr

Publisher, Elsevier

A biomedical research scientist by training, she previously was an Editor at Nature Genetics and Science Translational Medicine. She received a BS in Molecular and Cell Biology from the University of California, Berkeley; an MS in Physiological Sciences from the University of California, Los Angeles, and a MS/PhD in Biological Chemistry from the University of California, Irvine School of Medicine. She has served as Adjunct Faculty in the School of Biological Sciences at Columbia University and is a Fellow of the United Nations Worldview Institute in New York.

Ann Gabriel

Publishing Director, Elsevier

Ann Gabriel is Publishing Director for Elsevier’s global Computer Science Journals program and based in New York. Previously she held various publishing roles at Cambridge University Press. She received a joint BA/MA in Communications and English from the Annenberg School at the University of Pennsylvania. She has served as adjunct faculty at New York University. She is a member the Association of American Publishers (AAP) / Professional/Scholarly Publishing (PSP) Executive Committee.
About Elsevier

• Elsevier is a global leader in the development and dissemination of scientific, technological, and medical knowledge

• We are a global company, established in Amsterdam in 1880, with roots going back to 1580

• We publish nearly 2,000 journals and over 1,400 new book titles annually, and all electronically

• We help societies, institutions, researchers and clinicians around the world to disseminate information globally, reach new markets and expand their customer base to advance science and medicine

• We are industry leaders in providing content and technology solutions
Elsevier by discipline

Share of Journal Articles Published

- Elsevier: 26%
- Wiley-Blackwell
- Springer
- AIP
- IEEE
- APS
- IOP
- ACS
- Wolters Kluwer

Others

Other publishers

Our Scientific Disciplines

- Earth Sciences
- Life Sciences
- Health Sciences
- Materials Science & Engineering
- Chemistry & Chemical Engineering
- Physics
- Maths & computer science
- Social Sciences
- Environmental Sciences

Over one million English language research articles published globally each year

About 1000 English language research articles published with Elsevier per day

It’s about people

- Over 7,000 people in 25 countries and more than 80 local offices
- We use our collective expertise to partner with experts in science and healthcare, and create content and technology solutions that help them get better outcomes.
https://www.youtube.com/watch?v=Weq_sHXghcg&feature=player_embedded
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Publishing Cycle

- Solicit and manage submissions
  - >600,000+ article submissions per year
  - 500,000 referees
  - 1 million referee reports per year
- Manage peer review
  - 40%-90% of articles rejected
  - 7,000 editors
  - 70,000 editorial board members
  - 6.5 million author/publisher communications per year
- Edit and prepare
  - 300,000 new articles produced per year
  - 180 years of back issues scanned, processed and data-tagged
- Archive and promote
  - 9 million articles available
  - 10 million researchers
  - 4,500+ institutions
  - 180+ countries
  - >400 million downloads per year in 2008
  - 2.8 million print pages per year
- Publish and disseminate
  - 1,000 new editors per year
  - 18 new journals per year
  - Organise editorial boards
  - Launch new specialist journals
- Production
  - >600,000+ article submissions per year

- 180+ countries
- >400 million downloads per year in 2008
- 2.8 million print pages per year
- 1,000 new editors per year
- 18 new journals per year
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- 9 million articles available
- 10 million researchers
- 4,500+ institutions
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Focus on the author

Journals, editors, reviewers, etc. are “tools” to satisfy key author needs:
• priority, certification of research,
• continuation of funding and employment,
• recognition and career

Journal Publishing
Measuring Impact

Journal citation data and bibliometrics can be used to measure the impact or influence of articles, authors, and journals.

- **Impact Factor** = the average annual number of citations in year X to articles published in the two years prior, (X–1) and (X–2).

- **Hirsch Index / h-index** = A scientist has index $h$ if $h$ of his/her $N_p$ papers have at least $h$ citations each, and the other $(N_p - h)$ papers have no more than $h$ citations each.
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The Peer Review Process - Overview

Author

START

Submit a paper

Revise the paper

Editor

Basic requirements met?

[Yes]

Assign reviewers

Collect reviewers’ recommendations

[No]

REJECT

[Reject]

[Revision required]

Make a decision

[Reject]

[Accept]

ACCEPT

Reviewer

Review and give recommendation

Michael Derntl
http://www.pri.univie.ac.at/~derntl/papers/meth-se.pdf
What IS a strong manuscript?

- Has a **novel, clear, useful, and exciting** message
- Presented and constructed in a **logical** manner
- Reviewers and Editors can grasp the scientific significance **easily**
- A scientific paper is **not a research report**, but a contribution to the scientific discussion
- A review is **not an overview of the literature** (as often in the introduction of a thesis) but a discussion of the literature bringing a new message
Pre-Editing
First Decision

- **Accepted**
  - Rare
    - Very rare, but it happens
    - Wait for proofs, article to post online

- **Rejected**
  - Likely
    - Probability 40-90%
    - Understand WHY: be critical
    - Resubmit, begin anew
First Decision Part 2

Minor
- Rare

Major
- Likely

- Manuscript is worth publishing
- Clarifications are needed
- Textual adaptations
- Still NO guarantee to acceptance

- Manuscript may be worth it
- Significant deficiencies to correct
- Additional experimentation
Manuscript Revision

- Cherish the opportunity of discussing your work directly with other scientists in your community

- Prepare a detailed Response Letter
  - Copy-paste each reviewer comment, and type your response below it
  - State specifically which changes you made to the manuscript
    - Include page/line numbers
    - No general statements like “Comment accepted, and Discussion changed accordingly.”
  - Provide a scientific response to comments to accept, ...
  - ..... or a convincing, solid and polite rebuttal when you feel the reviewer was wrong.
  - Write so that your response can be forwarded to review without editing
Rejection – not the end of the world

- Most scientists have been rejected– do not take it personally
- Try to understand why the paper was rejected
- Note that you have received the benefit of the Editors and reviewers’ time: take their advice seriously!
- Re-evaluate your work
- **If you resubmit, begin as if you are going to write a new article**
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Your Personal Reason for Publishing

However, Editors, reviewers, and the research community don’t consider these reasons when assessing your work.
Determine if you are ready to publish

You should consider publishing if you have information that advances understanding in a certain scientific field

This could be in the form of:
- Presenting new, original results or methods
- Rationalizing, refining, or reinterpreting published results
- Reviewing or summarizing a particular subject or field

If you are ready to publish, a strong manuscript is what is needed next
Peer-Reviewed Articles

- Original research article
- Short communications
- Review papers
- Perspectives
- Commentary

Get Advice

- Self-evaluate your work: Is it sufficient for a full article? Or are your results so thrilling that they need to be shown as soon as possible?
- Ask your colleagues for advice on your manuscript.
General Structure of a Research Article

- Title
- Abstract
- Keywords

- Main text
  - Introduction
  - Methods
  - Results
  - Discussions
- Conclusion

- Acknowledgement
- References
- Supplementary Data

Make them easy for indexing and searching! (informative, attractive, effective)

Journal space is not unlimited: make your article as concise as possible
Why Is Language So Important?

Save the Editor and the reviewers the trouble of guessing what you mean.

Complaint from an Editor:

“[This] paper fell well below my threshold. I refuse to spend time trying to understand what the author is trying to say. Besides, I really want to send a message that they can't submit garbage to us and expect us to fix it. My rule of thumb is that if there are more than 6 grammatical errors in the abstract, then I don't waste my time carefully reading the rest.”
Key to successful scientific writing is to be alert for common errors:
- Sentence construction
- Incorrect tenses
- Inaccurate grammar
- Not using English

Check the Guide for Authors for language specifications
Scientific Language - Sentences

- Write direct and short sentences
- One idea or piece of information per sentence is sufficient
- Avoid multiple statements in one sentence

An example of what NOT to do:
“If it is the case, intravenous administration should result in that emulsion has higher intravenous administration retention concentration, but which is not in accordance with the result, and therefore the more rational interpretation should be that SLN with mean diameter of 46nm is greatly different from emulsion with mean diameter of 65 nm in entering tumor, namely, it is probably difficult for emulsion to enter and exit from tumor blood vessel as freely as SLN, which may be caused by the fact that the tumor blood vessel aperture is smaller.”
The Process of Writing – Building the Article

Title

Introduction

Methods

Results

Discussion

Abstract

Conclusion

Figures/tables (your data)
A good title should contain the **fewest** possible words that **adequately** describe the contents of a paper.

- It is usually **one complete sentence**
- It usually captures the entire **essence of the discovery**
- **Short** catchy titles are more often cited
- **No** abbreviations or obscure acronyms
In an “electronic world”, keywords can determine whether your article is found or not!

Avoid making them:
- too general (“petroleum”, “exploration”, etc.)
- too narrow (so that nobody will ever search for it)

Effective approach:
- Look at the keywords of articles relevant to your manuscript
- Play with these keywords, and see whether they return relevant papers, neither too many nor too few
Graphite intercalation compounds (GICs) of composition CₓN(SO₂CF₃)₂ · δF are prepared under ambient conditions in 48% hydrofluoric acid, using K₂MnF₆ as an oxidizing reagent. The stage 2 GIC product structures are determined using powder XRD and modeled by fitting one dimensional electron density profiles. A new digestion method followed by selective fluoride electrode elemental analyses allows the determination of free fluoride within products, and the compositional x and δ parameters are determined for reaction times from 0.25 to 500 h.
Introduction

The place to convince readers that you know why your work is relevant

Answer a series of questions:

- What is the problem?
- Are there any existing solutions?
- Which one is the best?
- What is its main limitation?
- What do you hope to achieve?
Introduction

**Carve the question**

- Clarify what is known
- Clarify what is not known
- Clarify why this information is important
- Place the question in context to the current work
- Explain how the answer to the question will advance the field

**Develop the null hypothesis**

- How do you plan to test the hypothesis
- What are the methods to be used
- How many methods are needed to disprove your hypothesis
- Is the method validated
Methods / Experimental

- Include all important details so that the reader can repeat the work.
  - Details that were previously published can be omitted but a general summary of those experiments should be included.
- Give vendor names (and addresses) of equipment etc. used.
- All chemicals must be identified.
  - Do not use proprietary, unidentifiable compounds without description.
- Present proper control experiments.
- Avoid adding comments and discussion.
- Write in the past tense.
  - Most journals prefer the passive voice.
- Consider use of Supplementary Materials.
  - Documents, spreadsheets, audio, video, .....
Results – What Have You Found?

- The following should be included

  - The **main findings**
    - Thus not all findings
    - Findings from experiments described in the Methods section

  - Highlight how the **findings follow the figures**
    - Tell a story

  - Results of **statistical analysis**
    - Defend your data
Results – Figures and Tables

- Illustrations are critical, because
  - Figures and tables are the most **efficient way to present results**

- Results are the **driving force** of the publication

- A figure/table should **convey the message** besides giving the data of the experiment

- However, your **figure legend** should
  - **ONLY** describe the figure, **AND NOT**
  - **THE DATA**

"One Picture is Worth a Thousand Words"
Sue Hanauer (1968)
Results – Appearance Counts!

- Un-crowded plots
  - 3 or 4 data sets per figure; well-selected scales; appropriate axis label size; symbols clear to read; data sets easily distinguishable

- Each photograph must have a **scale marker** of professional quality in a corner

- **All Text in English**
  - Not in French, Chinese, Arabic, ...
  - Use color *ONLY* when necessary

- **Do not include long boring tables!**
Results

Establish the methodology used to address the question

- Develop the system and use it to show the reciprocal is not true
- Design a system testing range of variables to explain why a specific result is important
- The first piece of data should validate the method
- Use positive and negative controls

Structure the results according to your data

- Organize the data consistently
- Report the data consistently
- Abstain from using published data as part of the original research
# Discussion – What Do the Results Mean?

**Check for the following:**

- How do your results relate to the original question or objectives outlined in the Introduction section?
- Do you provide interpretation for each of your results presented?
- Are your results consistent with what other investigators have reported? Or are there any differences? Why?
- Are there any limitations?
- Does the discussion logically lead to your conclusion?

**Do not**

- Make statements that go beyond what the results can support
- Suddenly introduce new terms or ideas
- There is some flexibility here with being creative, but **do not over sell your results**
Conclusions

• The conclusion is not a summary of the paper and is no outlook to future work

• Present global and specific conclusions as a clear take home message

• Avoid judgments about impact

• Be **quantitative**, but avoid unnecessary adjectives
  - e.g. low/high, extremely, enormous, rapidly, dramatic, massive, considerably, exceedingly, major/minor, ...

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[Image: Target with a dart]
References: Get Them Right!

- Please **adhere to the Guide for Authors** of the journal
- It is your responsibility, to format references, not the Editor’s!
- **Check**
  - Referencing style of the journal
  - The spelling of author names, the year of publication
  - Punctuation use
  - Use of “et al.”: “et al.” = “and others”,
- **Avoid citing the following:**
  - Personal communications, unpublished observations, manuscripts not yet accepted for publication: Editors may ask for such documents for evaluation of the manuscripts
  - Articles published only in the local language, which are difficult for international readers to find.
Supplementary Material

- Data of *secondary importance* for the main scientific thrust of the article
  - e.g. individual curves, when a representative curve or a mean curve is given in the article itself
- Or data that do not fit into the main body of the article
  - e.g. audio, video, ....
- Not part of the printed article
  - Will be available online
Your chance to speak to the Editor directly

- Submitted along with your manuscript

- Mention what makes your manuscript special to the journal

- Note special requirements (suggest reviewers, conflicts of interest)
January 1, 2008

Dear Professor Schmidt,

Enclosed with this letter you will find an electronic submission of a manuscript entitled "Mechano-sorptive creep under compressive loading – a micromechanical model" by John Smith and myself. This is an original paper which has neither previously nor simultaneously in whole or in part been submitted anywhere else. Both authors have read and approved the final version submitted.

Mechano-sorptive is sometimes denoted as accelerated creep. It has been experimentally observed that the creep of paper accelerates if it is subjected to a cyclic moisture content. This is of large practical importance for the paper industry. The present manuscript describes a micromechanical model on the fibre network level that is able to capture the experimentally observed behaviour. In particular, the difference between mechano-sorptive creep in tension and compression is analysed.

John Smith is a PhD-student who within a year will present his doctoral thesis. This present paper will be a part of that thesis.

Three potential independent reviewers who have excellent expertise in the field of this paper are:

Dr. Fernandez, Tennessee Tech, email1@university.com
Dr. Chen, University of Maine, email2@university.com
Dr. Singh, Colorado School of Mines, email3@university.com

I would very much appreciate it if you would consider the manuscript for publication in the International Journal of Science.

Yours sincerely,

[Name]

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School of Science and Engineering
Northeast State University
College Park, MI 10000
USA
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- Who we are
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International scientific ethics have evolved over centuries and are commonly held throughout the world.

Scientific ethics are not considered to have national variants or characteristics – there is a single ethical standard for science.

Ethics problems with scientific articles are on the rise globally.
Ethics Issues in Publishing

Scientific misconduct
- Falsification of results

Publication misconduct
- Plagiarism
  - Different forms / severities
  - The paper must be original to the authors
- Duplicate publication
- Duplicate submission
- Inappropriate acknowledgement of prior research and researchers
- Inappropriate identification of all co-authors
- Conflicts of interest
Plagiarism Detection Tools

- Elsevier is participating in 2 plagiarism detection schemes:
  - Turnitin (aimed at universities)
  - Ithenticate (aimed at publishers and corporations)

Manuscripts are checked against a database of 20 million peer reviewed articles which have been provided by 50+ publishers

- Editors and reviewers
- Your colleagues
- Other “whistleblowers”
  - “The walls have ears”, it seems ...

The walls have ears, it seems ...
Crosscheck

- 83 publishers
- 25.5 million articles
- 48157 journals, books, conference proceedings
- Papers are run through iThenticate which matches the document against the Crosscheck database and major data providers and the open web
- Get a report displaying degree of similarity to other documents and a link to the fulltext of the matching documents
- Cannot detect plagiarism but can identify a manuscript of concern
Publication Ethics – Self-Plagiarism

2003

2004

Same colour left and right

Same text
"I deeply regret the inconvenience and agony caused to you by my mistake and request and beg for your pardon for the same. As such I am facing lot many difficulties in my personal life and request you not to initiate any further action against me. I would like to request you that all the correspondence regarding my publications may please be sent to me directly so that I can reply them immediately. To avoid any further controversies, I have decided not to publish any of my work in future."

An author
December 2, 2008
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...
What Leads to Acceptance?

- Attention to details
- Check and double check your work
- Consider the reviewers’ comments
- English must be as good as possible
- Presentation is important
- Take your time with revision
- Acknowledge those who have helped you
- New, original and previously unpublished
- Critically evaluate your own manuscript
- Ethical rules must be obeyed

– Nigel John Cook
Editor-in-Chief, *Ore Geology Reviews*
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Elsevier content and ScienceDirect

Over 12 million articles available

Supported by your library

Increasing distribution to mobile and apps
So what is Open Access?

- Author processing fee per article published – sole mechanism to support journal
- Some journals use subsidies, grants and waivers
- Often referred to as “gold” open access

**EXAMPLES**
- Elsevier has 100 OA journals

- Option to make an article within a subscription journal open access
- Supported by several funding organisations
- Often referred to as the hybrid model

**EXAMPLES**
- Elsevier has 1,200 journals that offer this service
- Agreements with RCUK, Wellcome Trust, FWF, Telethon

- Subscription journals making articles freely available online after time delay
- Time to free access varies due to differences in subject fields

**EXAMPLES**
- Over 90 Elsevier journals now offer this solution in fields such as medicine, life sciences and mathematics

- Posted manuscripts, or pre-prints to websites and repositories
- Supported by many universities and research organisations
- Often referred to as “green” open access
- Elsevier has a very liberal posting policy that supports researcher needs
- Agreements developed with institutions to facilitate

- Manuscript Posting
- Open Access Journals
- Sponsored Articles
- Free Access to Archive
## Author options for Open Access

### What are my open access options?

<table>
<thead>
<tr>
<th>Open access publishing</th>
<th>Self-Archive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(gold open access)</td>
<td>(green open access)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Options</th>
<th>Open access journals</th>
<th>Journals which support open access</th>
<th>Self-archive your manuscript published as a subscription article</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access</td>
<td>Public access is to the final published article</td>
<td>Access is immediate</td>
<td>Public access to accepted author manuscript</td>
</tr>
<tr>
<td>Fee</td>
<td>Open access fee is paid by the author, or on their behalf</td>
<td>Fees range between $500 and $5,000 US Dollars depending on the journal.</td>
<td>No fee is payable by the author as costs are covered by library subscriptions.</td>
</tr>
<tr>
<td>Use</td>
<td>Determined by your choice of user license.</td>
<td></td>
<td>Authors retain the right to reuse their articles for a wide range of purposes</td>
</tr>
</tbody>
</table>

[Links: Over 90 open access journals, 1600+ Journals which support open access, Learn about green open access]
Open Access has grown in the last decade

- Gold OA ("Author Pays") articles made up 7% of total in 2012
- The level of uptake varies by field – highest in Life and Health Sciences
Elsevier publishes over 6,000 open access articles per year

- Elsevier publishes 100+ Open Access Journals
- This number will grow

Elsevier offers the Open Article choice in 1,600 established, peer reviewed journals
More ways to publish

“Sound Science”
Publishers are capitalizing on articles that previous would have been “rejected”
• Article cascading
• ‘Sound science’ peer review

“Shift towards author pays”
Author pays and hybrid market grew from 5.6% to 6.8% of STM (2011-12)

“New peer review models”
New peer review models are emerging:
• Peer review prior to submission
• Collaborative peer review
• Open, post-publication peer review or metrics assessment

AAAS will be launching, in early 2015, a digital-only journal, Science Advances
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Innovation: Format of the article / ARTICLE OF THE FUTURE
Innovation: Format of the article / AUDIO SLIDES / GRAPHICAL ABSTRACTS

Audio Slides
- 1212 published 2013
- Positive feedback
- Non-peer reviewed
- SD and YouTube Gallery

Graphical Abstracts
A single, concise, pictorial and visual summary of the main findings of the article. This could either be the concluding figure from the article or a figure that is specially designed for the purpose, which captures the content of the article for readers at a single glance.
Innovation: Article of the Future demos

Tables:  http://www.articleofthefuture.com/S0010027709000730/

Video:  http://www.articleofthefuture.com/S1359646210003994

Crosshair:  http://www.articleofthefuture.com/S0008622310002770

Proteins:  http://www.articleofthefuture.com/S0020751909003920

Ref’s:  http://www.articleofthefuture.com/S0010027709000730

Map:  http://www.articleofthefuture.com/S0001706X1000029X

Diagrams:  http://www.articleofthefuture.com/S0020751909003920
4 tips to getting your science noticed

1. Chose a topic you are curious about

I chose earthquake forecasting because when I was 11 years old, I was present at a location where earthquake happened and became curious about how earthquakes occur and why we cannot get prior notice about it. (Even people who do not pay rent, get three day notice of eviction!) As I started reading about earthquake and its destructive power around the world and difficulties it causes to ecosystem, my curiosity turned into urge to find a solution to the problem.

2. Read and understand the topic

When I was curious, I found a way to go the extra mile to learn about the topic. I asked my parents to drop me off at the public library on the weekend for few hours and read books, articles, and journals at my own pace, accessed the internet and solidified what I read in the books. After two months of summer time well spent, I felt comfortable about the topic to chart out a plan for research in that area.

3. Identify mentors and learn to work with them

I realized that when I embark on doing something I am not fully familiar with, it is a great idea to have mentors. They encourage us as we sag in the process, make us do the work on time. Initially it feels like their expectations are at much higher plane, but the routine meetings and review made me understand and grow. In this way, I have progressed and learned more on how to work with them.

4. Have your heart set

This whole process is not an easy road to travel. I realized early on that unless I have my heart set on what I want to achieve with the research, I would give up along the way. So understand the high demand of hundreds of hours of work involved, and learn to take breaks and do other things that bring you back with more energy. Playing chess was my outlet; when I go and win some matches and feel good about it, it gives me energy to come back to research.

In 2012, Suganth Kannan presented his research at the Fifth Annual Conference on Engineering Failure Analysis (ICEFA) in The Hague.

He later reported on the inspiration behind his model for earthquake prediction – and what he learned on his (“tedious but worth it”) journey to publication.
Thank You!
Questions welcome

Lily Khidr, PhD
l.khidr@elsevier.com

Ann Gabriel
a.gabriel@elsevier.com
Appendix: Open Access License Policy

Elsevier offers the following user licenses to articles which are free to access from ScienceDirect.

Click on the boxes to learn more about each license.

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