An Introduction to Scholarly Publishing

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How to get published
Preparing your manuscript
Planning your article
Are you ready to publish?

Not ready
- Work has no scientific interest

Ready
- Work advances the field

- Original results or methods
- Significant enhancement of published work
- Up-to-date review of a subject or field
- Duplication of published work
- Incorrect conclusions
- Outdated work
Planning Your Article
What makes a strong manuscript?

- Clear and useful message
- A logical manner
- Readers grasp the research

Editors, reviewers and readers all want to receive well presented manuscripts that fit within the aims and scope of their journal.
Planning your article
Types of manuscripts

Full articles
- Substantial, complete and comprehensive pieces of research
  *Is my message sufficient for a full article?*

Letters or short communications
- Quick and early communications
  *Are my results so thrilling that they should be shown as soon as possible?*

Review papers
- Summaries of recent developments on a specific topic
- Often submitted by invitation

Your supervisor or colleagues are also good sources for advice on manuscript types.
Citations per article type

- Reviews
- Articles
- Short communications

Years after publication

Citations
The process of writing – building the article

- Title, Abstract, and Keywords
- Conclusion
- Introduction
- Methods
- Results
- Discussion
- Figures/Tables (your data)
Effective manuscript titles

A good title should contain the **fewest** possible words that **adequately** describe the content of a paper.

**Effective titles**
- Identify the **main issue** of the paper.
- **Begin** with the subject of the paper.
- Are accurate, unambiguous, specific, and complete.
- Do not contain rarely-used abbreviations.
- **Attract readers** - short, catchy titles are often better cited.
  - Remember: readers are the potential authors who will cite your article.
Abstract

- This is the advertisement of your article
- Make it interesting and understandable
- Make it accurate and specific
- A clear abstract will strongly influence whether or not your work is considered
- Keep it as brief as possible

**Beware of spin:** The frequency of “positive” words in abstracts increased from 1.7-2.3% of PubMed abstracts in 1974-1980 to 17.5% in 2014. The words with the largest increases:

- robust
- novel
- innovative
- unprecedented
- groundbreaking
Keywords

Keywords are used by indexing and abstracting services and serve as the labels for your manuscript.

Avoid making them
- too general (e.g. “nanomaterials” = 33K results)
- too narrow (e.g. “nanosimulation” = 5 results)
- duplicates of words already in the title

Effective approach
- Search the author keywords of articles relevant to your manuscript and see how many results are returned
Introduction

Provide a brief context to the readers

Address the problem

Identify the solutions and limitations

Indicate novelty of approach

Offer clear hypothesis and proposed solution

You are telling a story. Introduction sets the scenario.

Do not attempt to summarize the whole field (it is not possible!)

What is your motivation? What are the gaps in knowledge?

Why is your approach different or better? How do you plan to fill the gaps?

At the end of the introduction, the reader should know the problem and the solution you propose.
Methods

- Describe how the problem was studied
- Include detailed information
- Do not describe previously published procedures
- Identify the equipment and describe materials used

- Provide source and related product information
- Write out full chemical and biological compound names first (followed by abbreviation).
- Present appropriate experimental controls and statistical analyses
Results

- Be clear & easy to understand
- Highlight the main findings
- Feature unexpected findings
- Provide statistical analysis
- Include illustrations and figures

Analytical description of data with minimal interpretation of results and/or comparison with literature

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Figures and Tables

- Easy to read – maximize space
- Consistent formatting between figures
- Plots: labels, scale and symbols
- Micrographs: scale bar, key features, image manipulations
- Self-explanatory captions and legends – clear take home point
Discussion

- Critical interpretation of results
- Make the discussion correspond to the results
- Do not make statements unsupported by your data.
- Compare your results to published results

- How does your data relate to the “big picture” or applications?
- Can you identify a mechanism or form new hypotheses?
Conclusion

- Not the same as a summary!
- Give conclusions that are supported by your results
- Do not overreach. Statements such as “this method can potentially be used…” do not belong to the conclusions
- Provide justification for the work
  - Relationship between the objective and key findings
- Suggest future experiments

How the work advances the field from the present state of knowledge
Acknowledgments

- Advisors
- Financial supporters and funders
- Proof readers and typists
- Suppliers who may have donated materials
References

- Do not use too many references
- Always ensure you have fully absorbed the material you are referencing
- Avoid excessive self citations
- Avoid excessive citations of publications from the same region or institute
- Conform strictly to the style given in the Guide for Authors
An important disclaimer

While the following slides offer guidance and general principles of responsibilities that Authors should consider, different aspects of publishing ethics can vary greatly by discipline and journal.

It is recommended that all Authors consult their peers, advisors and journal Editors to learn the specific Author responsibilities in their discipline.
Authors may be asked to confirm…

- Originality of submitted work
- Data is real and not fabricated
- Obtaining of necessary permissions
- Obtaining of any necessary privacy waivers (subjects)
- Compliance with research standards
- Compliance with publisher and journal ethics and conflicts of interest policies
- Manuscript has been submitted to only one journal at a time
- Agreement of all co-authors
Authorship

For example, the International Committee of Medical Journal Editors recommends that an author must meet the following 4 criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
- Drafting the work or revising it critically for important intellectual content; AND
- Final approval of the version to be published; AND
- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.
Increased fasting serum glucose concentration is associated with adverse knee structural changes in adults with no knee symptoms and diabetes.


- Drs. Cicuttini, Wluka, Giles and English were involved in study design and inception.
- Dr. Davies-Tuck, Dr. Wang, Dr. Wluka, Dr. Berry, and Dr. Cicuttini were involved in subject recruitment, data collection, statistical analyses and interpretations.
- All authors were involved in manuscript preparation and revision.
General principles

- Order of authors varies by discipline and culture, but a common rule is that the **first author** is the person who conducts or supervises the data collection, analysis, presentation and interpretation of the results, and also puts together the paper for submission.

- The **corresponding author** can be the first author, or sometimes is a senior author from the institution.

- **Avoid ghost authorship**: excluding authors who participated in the work.

- **Avoid gift authorship**: including authors who did not contribute to the work.

- **All authors** should be aware that they are being included.
Conflicts of interest

Conflicts of interest can take many forms

- **Direct Financial** - employment, stock ownership, grants, patents
- **Indirect Financial** - honoraria, consultancies, mutual fund ownership, expert testimony
- **Career & Intellectual** - promotion, direct rival
- **Institutional**
- **Personal Belief**

The proper way to handle potential conflicts of interest is through transparency and disclosure. At the journal level, this means disclosure of the potential conflict in your cover letter to the Journal Editor.
What is plagiarism?

Plagiarism is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit, including those obtained through confidential review of others’ research proposals and manuscripts.

Federal Office of Science and Technology Policy, 1999
Plagiarism detection

- Huge database of 30+ million articles, from 50,000+ journals, from 400+ publishers
- Software alerts Editors to any similarities between the article and this huge database of published articles
- Manual review and intervention is still recommended
- Many journals now check every submitted article using CrossCheck

How big is the problem of plagiarism?

- Actual rates are low but in absolute numbers, still alarming
- Perception of editors, publishers & media is that rates are increasing but no robust evidence yet: even some to the contrary
Correct citation is key

Crediting the work of others (including your advisor’s or your own previous work) by citation is important for at least three reasons:

- To place your own work in context
- To acknowledge the findings of others on which you have built your research
- To maintain the credibility and accuracy of the scientific literature
Can you plagiarize your own work?  
Text re-cycling/Self-plagiarism

A gray area, but best to err on the side of caution: always cite/quote even your own previous work

Editors may conclude that you intentionally exaggerated your output

The Methods section can be particularly challenging
Image manipulation

Whilst it is accepted that authors sometimes need to manipulate images for clarity, manipulation for purposes of deception or fraud will be seen as scientific ethical abuse and will be dealt with accordingly.

For graphical images, the following policy generally applies:

1. No specific feature within an image may be enhanced, obscured, moved, removed, or introduced.
2. Adjustments of brightness, contrast, or color balance are acceptable if and as long as they do not obscure or eliminate any information present in the original.
3. Nonlinear adjustments (e.g. changes to gamma settings) must be disclosed in the figure legend.
Consequences

Potential consequences can vary according to the severity of the misconduct and the standards set by the journal editors, institutions and funding bodies.

Possible actions include:

- Written letters of concern and reprimand
- Article retractions
- Some form of disciplinary action on the part of the researcher’s institute or funding body

All Elsevier journals are members of:
How to get published
Selecting a journal
Questions to ask

1. How do I reach the right audience for my paper most effectively?
2. How long should I expect to wait for a decision?
3. What is the reputation of the journal?
Identifying an appropriate journal

- Check your manuscript’s references for potential journals
- Search in PubMed, Google Scholar, Scopus, etc., using relevant keywords
- Ask your supervisor or colleagues for recommendations
- Ask a librarian for resources that can help
- Use a free service like Elsevier’s Journal Finder tool (http://journalfinder.elsevier.com)
- Read the Aims & Scope of any prospective journal

Be realistic about your paper
Publishing in a new journal

- Be diligent when assessing a new journal:
  - Who is involved (and are they really)?
  - What promises are made regarding peer review?
  - Has the journal published articles yet (and are they any good)?
  - What are the journal’s archiving policies if publication ceases?

- Beware of “predatory” journals, but remember that not all new journals are predatory.

- Remember that new journals will not yet be indexed in Medline/PubMed or other services, and will not have an impact factor.

For more questions to ask, see http://thinkchecksubmit.org/check/
The impact factor

- How many times the papers in a journal are cited on average
- Influenced by editorial policies of journals and turnover of research within a field

**Calculation of the 2015 impact factor:**

2013: B  # of articles published in 2013: Y

Calculation: Cites to recent articles: A+B  
Number of recent articles: X+Y
## Impact factor variations among fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Highest-ranked Journal</th>
<th>Impact Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine, General &amp; Internal</td>
<td><em>New England Journal of Medicine</em></td>
<td>59.558</td>
</tr>
<tr>
<td>Engineering, Biomedical</td>
<td><em>Annual Review of Biomedical Engineering</em></td>
<td>10.256</td>
</tr>
<tr>
<td>Geriatrics &amp; Gerontology</td>
<td><em>Ageing Research Reviews</em></td>
<td>7.526</td>
</tr>
<tr>
<td>Business</td>
<td><em>Academy of Management Review</em></td>
<td>7.288</td>
</tr>
<tr>
<td>Law</td>
<td><em>Stanford Law Review</em></td>
<td>4.944</td>
</tr>
<tr>
<td>Computer Science, Software Engineering</td>
<td><em>ACM Transactions on Graphics</em></td>
<td>4.218</td>
</tr>
<tr>
<td>Mathematics, Applied</td>
<td><em>Communications on Pure and Applied Mathematics</em></td>
<td>3.617</td>
</tr>
<tr>
<td>Nursing</td>
<td><em>International Journal of Nursing Studies</em></td>
<td>3.561</td>
</tr>
<tr>
<td>History</td>
<td><em>American Historical Review</em></td>
<td>1.339</td>
</tr>
</tbody>
</table>
Read the instructions for authors

- Find them on the journal homepage
- Follow the Instructions for Authors in your manuscript
- Editors or reviewers may be negatively influenced by poorly prepared manuscripts
The Journal Publishing Cycle
Where did my paper go and will I ever see it again?
The journal publishing cycle

- Manuscript submission
- Peer review
- Edit and prepare
- Publish and disseminate
- Archive and promote use
- Production
Online submission and peer review systems

Online peer review systems accept manuscript submissions and facilitate online peer review.

Online systems can handle hundreds of thousands of submissions and reviews per year.
Peer review

- Helps to determine the quality, validity, significance, and originality of research
- Helps to improve the quality of papers

Variations:
- Blind, double-blind and open
- Pre- vs. post-publication (or a combination)
- Collaborative peer review
- Portable peer review
Types of decisions

- **Rejection**
  - Learn from feedback provided and improve work for re-submission

- **Minor Revision**
  - Usually a good sign. Make the edits and resubmit quickly

- **Major Revision**
  - Answer comments, one by one, and explain changes made or not made
  - If you feel a remark is not justified or a request is unreasonable, say so, but substantiate your response
  - Submit a revised version highlighting where changes have been made
  - Acceptance is not guaranteed
The journal publishing cycle

- Manuscript submission
- Peer review
- Edit and prepare
- Production
- Publish and disseminate
- Archive and promote use
Journal article production

- **Preprint**
  Original version of the manuscript

- **Accepted manuscript**
  Peer reviewed and accepted by the Editor

- **Document proof**
  Copy edited, proofs reviewed by author

- **Published journal article**
  Logo, pagination, branding
The journal publishing cycle

- Manuscript submission
- Peer review
- Edit and prepare
- Production
- Publish and disseminate
- Archive and promote use
Methods of dissemination

Traditional print journals

Electronic journal platforms… Including mobile apps
The journal publishing cycle

1. Manuscript submission
2. Peer review
3. Edit and prepare
4. Production
5. Publish and disseminate
6. Archive and promote use

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Preservation and archiving

In addition to traditional print archives (in some cases), multiple distributed electronic archives help to ensure preservation of journal content for posterity.

PORTICO

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Copyright fundamentals

Authors (and in some cases their employers) have the right under national copyright laws (and international treaties) to control how their works are to be used and distributed to others.

The extent of copyright rights allows authors to permit: the copying, distribution, online access, translation and creation of other derivative works of research.
Copyright fundamentals

Copyright protects the way you express your thoughts and describe your research and conclusions in your writing. It does not protect the underlying facts or ideas of your work.
Copyright fundamentals

Publishers or other distributors need written agreements from authors to transfer copying and distribution rights.

These journal publishing agreements can take the form of a transfer of copyright or a publishing license.

Journal publishing agreements usually spell out not only rights granted to the publisher, but also the rights retained by the author.
Publishing agreements

Author warranties

- The publishing agreement has warranties as to originality
- Obtaining of necessary permissions
- Obtaining of any necessary privacy waivers (subjects)
- Compliance with research standards
- Compliance with publisher and journal ethics and conflicts of interest policies
- Agreement of all co-authors

Government works

- The laws of some countries note that the works of government employees may have a special copyright status

US Government Works: if done in the scope of employment, exclusively by government authors, then will be public domain (no copyright attaches)

Crown Copyright Works: for UK government authors, work is owned by and licensed out by UK government (similar rules in other countries)
Rights retained by authors (example)

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Get noticed
Promoting your researcher for maximum impact
Information overload

- The volume of research articles is growing at an accelerated pace
- For most researchers, it’s a real challenge to keep up with the literature
- Your job: make sure your research doesn’t fall through the cracks!

7 hrs/week
average time spent on literature
Preparing your article

Writing and publishing your article

- Spend time on abstract and conclusion & references
- Share research data and link to it in your article
- Use easy to understand charts and professional illustrations
- Use clear and correct manuscript language
- Choose the right journal

According to one study, 40% of researchers surveyed said they had not read the whole article for the last “important” article they had read.
Preparing your article

Search Engine Optimization (SEO)
Preparing your article

Graphical Abstracts

Targeting the lymphatics using dendritic polymers (dendrimers), Lisa M. Kaminskasa, Christopher J.H. Porter, Advanced Drug Delivery Reviews, http://dx.doi.org/10.1016/j.addr.2011.05.016
Promoting your article

1. Conferences
   - Prepare to network
   - Also connect online
   - Online poster

2. Media relations
   - Research statement – Explain the significance of your research and key outcomes
   - Make use of your institution or funding body’s communication channels
Promoting your article

3. Share links to your article
   - Customized short link with free access
   - Link from university website to boost SEO
Promoting your article

4. Online CV

LinkedIn

- Share links to your articles, also in relevant groups
- Add images
- Add videos, AudioSlides
- Reposition the publication section
Promoting your article

5. Social Media

**Twitter**
- Follow other researchers
- Post regularly and respond promptly
- Retweet
- Use images

**Facebook**
- Create a ‘fan’ page
- Invite fellow researchers
- Share images, videos, AudioSlides
- Link to your articles
- Discuss and ask for feedback

*one mention of a scholarly article every seven seconds*

**The tweet is the message:** According to a 2016 study, **59%** of shared URLs are never clicked on.
Promoting your article

Scholarly collaboration networks

Share your publications with your groups

Connect with research colleagues + join new communities

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Monitoring your article

Mendeley Stats:
- Feedback on downloads, shares and citations
- Data about the geographic locations and research disciplines of your readers
- Search terms used to find your publications
- A comparison of the performance of your article with other people’s articles
Thank you
Useful links

- Elsevier.com/authors
- Elsevier.com/reviewers
- Elsevier.com/ethics
- Mendeley.com - free reference manager and academic social network
- Elsevier.com/webshop - Language Editing Services
- COPE - www.publicationethics.org.uk/about
- PERK - http://www.elsevier.com/editors