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an informa business

Publishing Medical Research in Academic Journals

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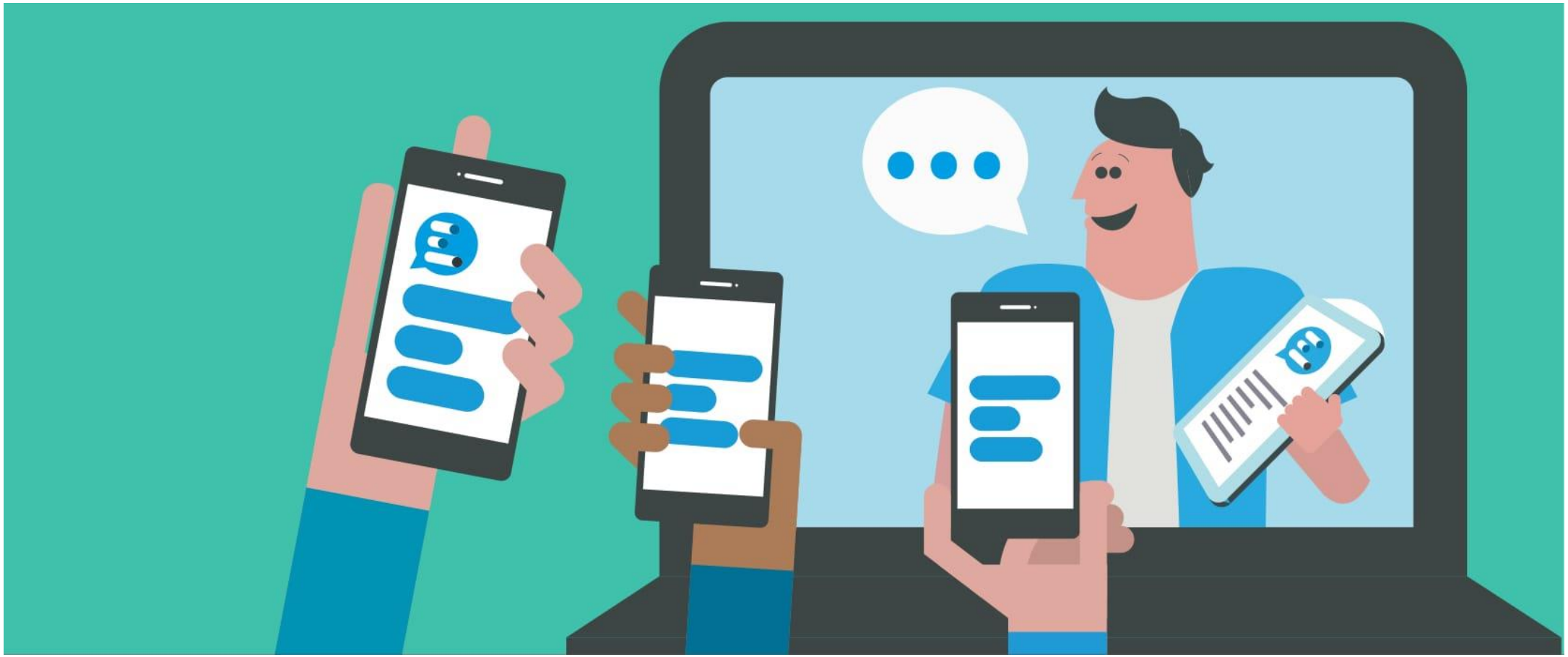
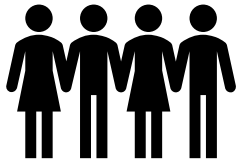
Photo: Henry Lo, Unsplash

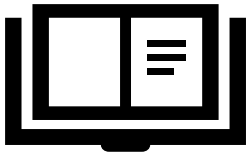
Polling



Publishing landscape today



10000 publishers
5000 indexed in Scopus



33100 active English language, peer reviewed journals

7-9 million researchers

Increase in
R&D investment

Over 3 million articles a year

Numbers are increasing

Choosing a journal

- Your current project
  - Original research
  - Review
  - Case studies

- Your intended audience
  - Specialists in the field
  - General public
  - Policy makers

Remember, you are joining a conversation!

Choosing a journal - key considerations

- Age
- History
- Affiliation
- Scope
- Audience
- Impact
- Editorial board
- Publishing model
- Peer review
- Rejection rate

Photo: Eugenio Mazzone at Unsplash

Journal Metrics

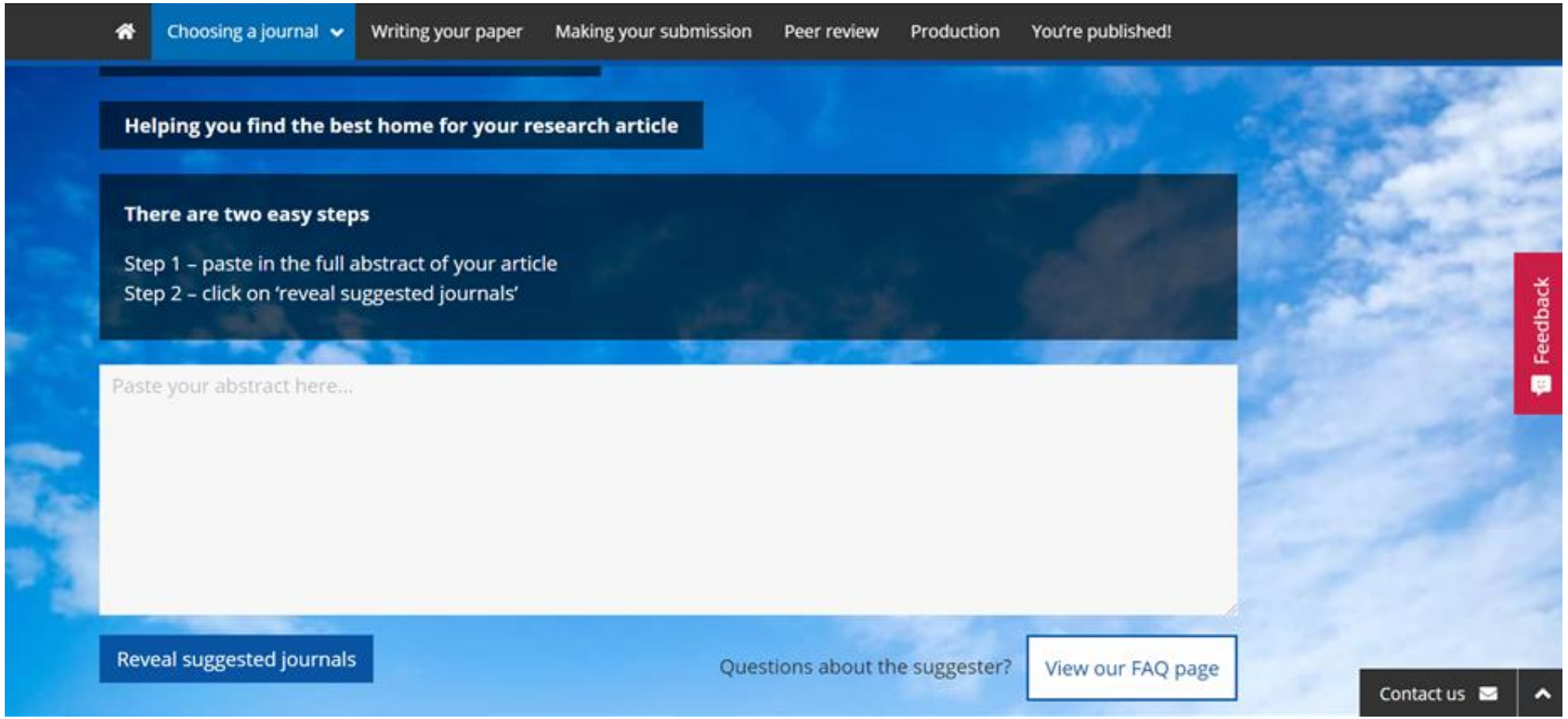
- Journal metrics are useful for helping you decide where to submit your manuscript.
- Each metric has its own limitations.
- It is best to look at multiple metrics.
- Impact Factor is the most well-known journal metric, but isn't necessarily the best.

CiteScore™

Altmetric

SJR SCImago Journal & Country Rank

Journal suggester



https://authorservices.taylorandfrancis.com/journal-suggester/

Open Access

1. Making content **freely available** online to read. Meaning your manuscript can be read by anyone, anywhere.

2. Making content **reusable** by third parties with little or no restrictions.

OA publishing models

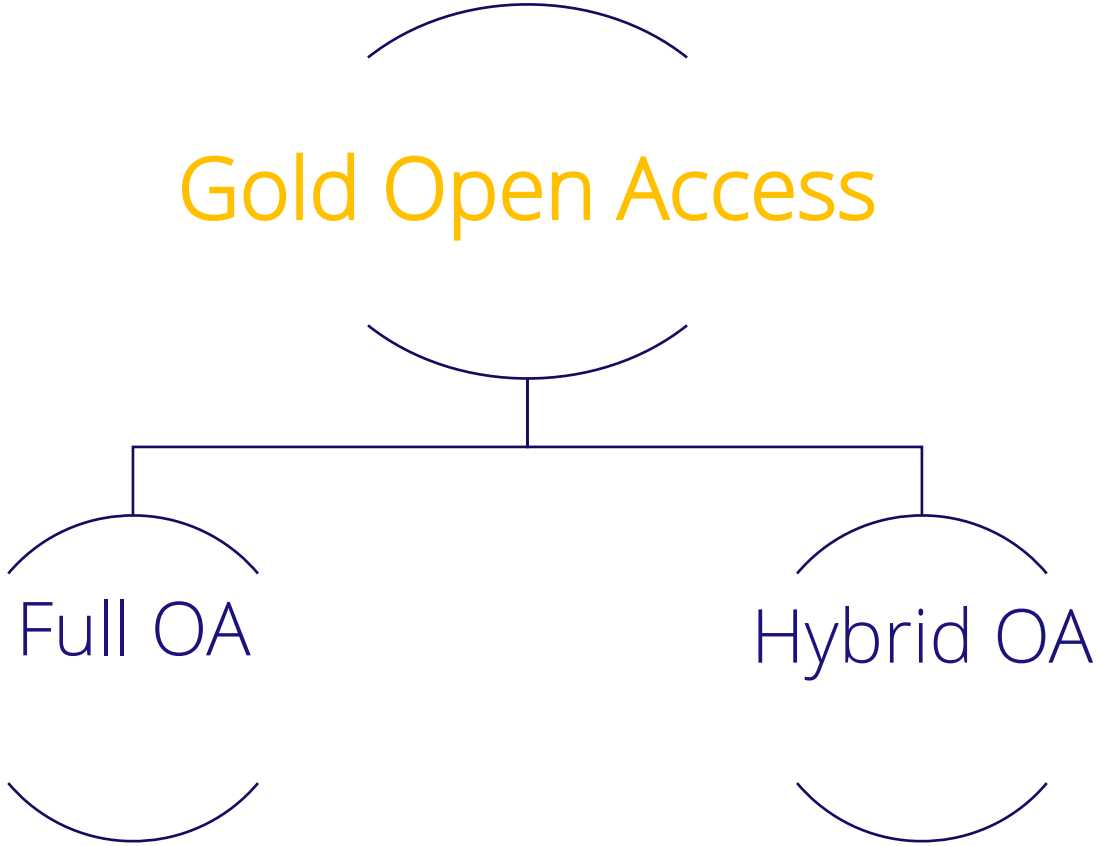
Journals that publish all content Open Access.

Funded by:

APC (article publishing charge)

Sponsorship

Institutional agreement



Subscription-funded journals that offer the option of choosing Open Access.

Open Access cost is funded by:

APC

Under an existing agreement with your institution

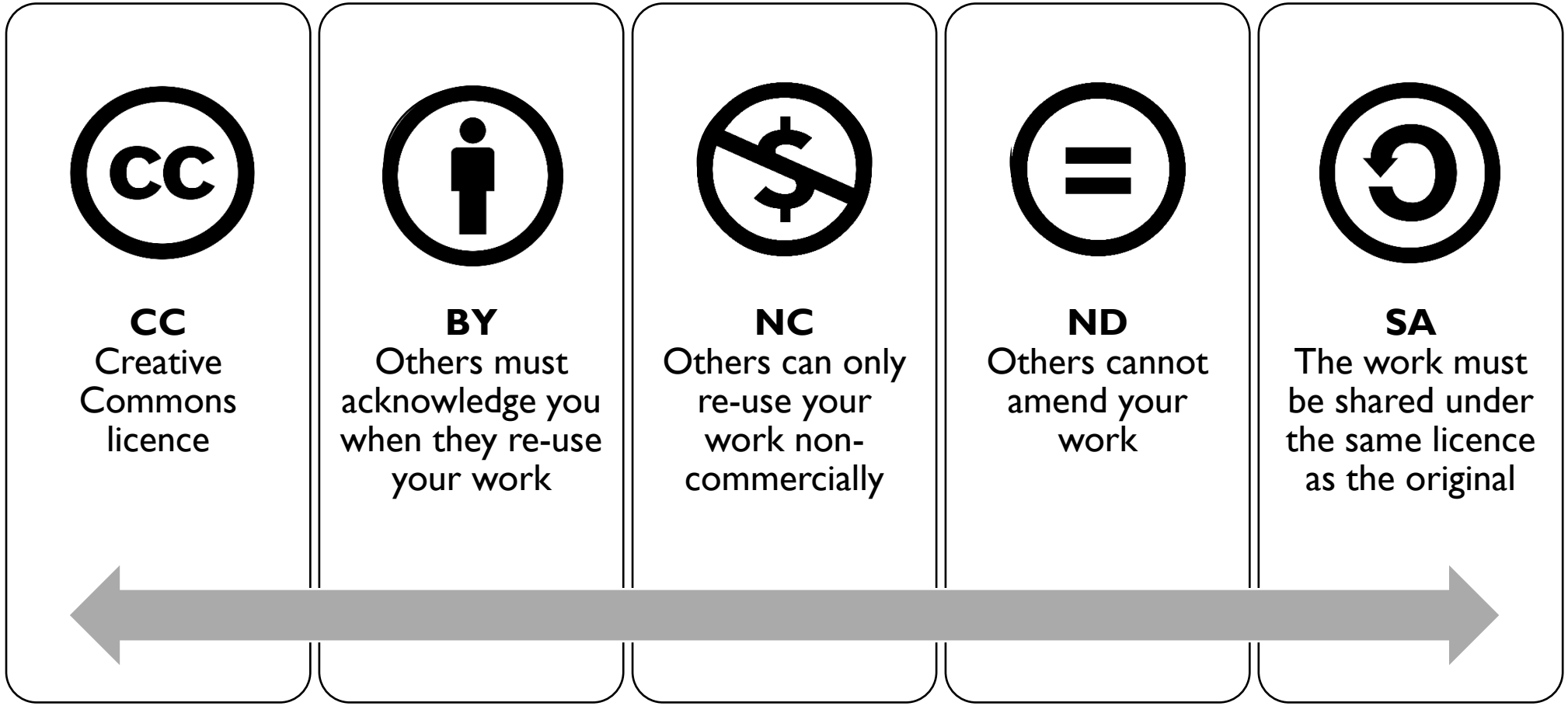
What would be your top reason for publishing your work open access?

- Open Access offers greater visibility, transparency and impact.

Articles published Open Access with Taylor & Francis typically receive 32% more citations and over 6 times as many downloads.

Your funder or institution may encourage, or mandate Open Access and funds might be available to cover charges

How to read a licence



Challenges

Predatory journals pose a serious threat both to researchers publishing the results of their work and to the peer-reviewed medical literature itself. These publications differ from legitimate open-access journals in that predatory journals subvert the peer-review publication system for the sole purpose of financial gain with little evident concern for ethical behavior.

AMWA, EMWA & ISMPP joint statement on predatory publishing

Making informed choices

www.thinkchecksubmit.org

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS

www.doaj.org

OASPA

www.oaspa.org

Preparing your manuscript

Think like an editor!

"...I think authors need to think 'what is it like to be an editor of a journal? How many papers is the Editor receiving per day, per week? What is going to actually make the journal pay attention to my paper?"

Monica Taylor, former editor of the
Journal of Moral Education

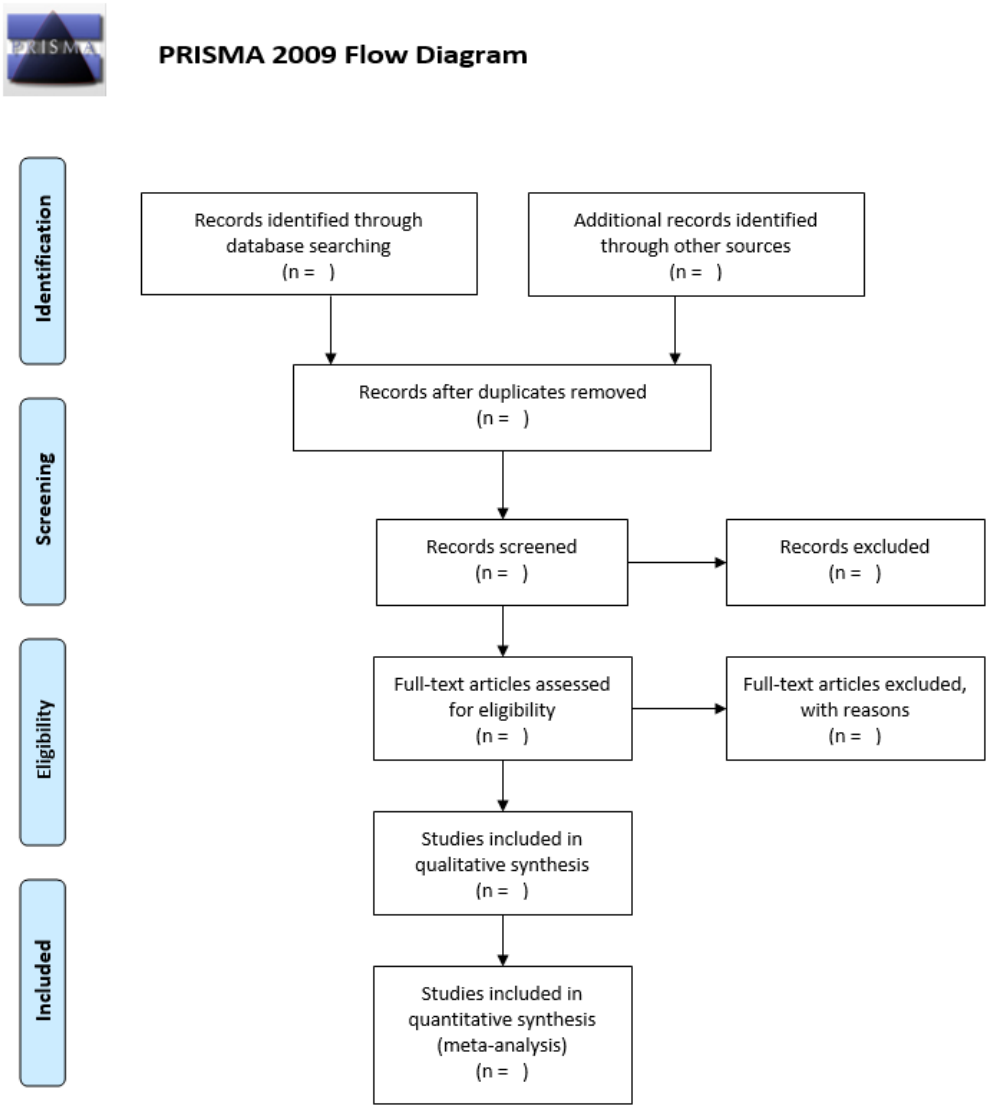
Ethical approval and reporting guidelines

- Before starting the study, ethical approval must be obtained for all protocols from the local institutional review board or other appropriate ethics committee.

- We recommend authors use study-design specific consensus-based reporting guidelines as guidance where possible.

- Some examples of these guidelines are:
  - **PRISMA:** systematic reviews and meta-analyses
  - **CONSORT:** clinical trials
  - **ARRIVE:** Animal Research Reporting *In vivo* Experiments
  - **STROBE:** observational studies in epidemiology

https://www.equator-network.org/reporting-guidelines/



Writing your manuscript

- Write first, edit later
- Keep it simple, complicated ideas expressed plainly
- The paper structure (IMRaD)
  - Introduction
    - Question/problem
    - Thesis/hypothesis/argument
    - Roadmap
  - Methods/theory
  - Results
  - Discussion
  - Conclusion
- You are telling a story-make sure it is consistant and easy to follow

What makes a good title?

- Simple advice: keep it short and to the point.
- Avoid redundant or cliché word/phrases.
- Highlight your findings, not your process.
- Make sure it stands out-creatively or in terms of clarity.
- Make sure to include specific keywords that capture the subject of your article.

Writing an abstract

- Write the paper first-it is a review, or map of the entire paper
- Check the IFAs for the journal you are submitting to-there will likely be requirements.
- Who is your intended audience-frame it for them
- About those words....keywords/phrases, naturally
- 'This paper'...focus on the essential information. Word counts!
- Revise everytime you revise the paper.
- Language-difficult to read?

Background/ Introduction

Scientific background and explanation of rationale

'Osteoporosis is associated with a substantial socioeconomic burden. Therapeutic options that prevent fracture incidence have greatly increased over the past few decades, although decision-making data available for drug selection based on the different requirements of each patient are inadequate. For instance, there are three different drug treatment options for reducing bone resorption: bisphosphonates, selective estrogen receptor modulators (SERMs)……'

Specific objectives or hypotheses

'….to obtain clinical evidence to support the relative efficacy and safety of bisphosphonates and SERMs as treatment options in clinical practice and information about their adequate use, we conducted a head-to-head randomized controlled trial (RCT) of minodronate and raloxifene with incidences of vertebral and non-vertebral fractures as the primary co-endpoint in postmenopausal, elderly women with osteoporosis….'

Quoted text from https://www.tandfonline.com/doi/full/10.1080/03007995.2020.1816537

Methods

- Study design
- Ethical approval (where applicable)
- Selection and Description of Participants/ Sample size
- Interventions
- Outcome measures
- Randomisation
- Blinding
- Statistics

Results & Discussion

Results

- Present results in a logical sequence, using figures and/or tables to supplement your description where appropriate
- Provide data on all outcomes stated in the Methods section
- Provide numeric results as both absolute numbers and derivatives such as percentages

Discussion

- Summarize the main findings of your study and explore explanations for these
- Emphasize the new and important aspects of your study and put these in context
- Discuss study limitations
- Link conclusions with aims of the study, where data supports this

Data sharing

What is data?

- Spreadsheets, results
- Images, photographs, video, music, survey responses, annotations, etc

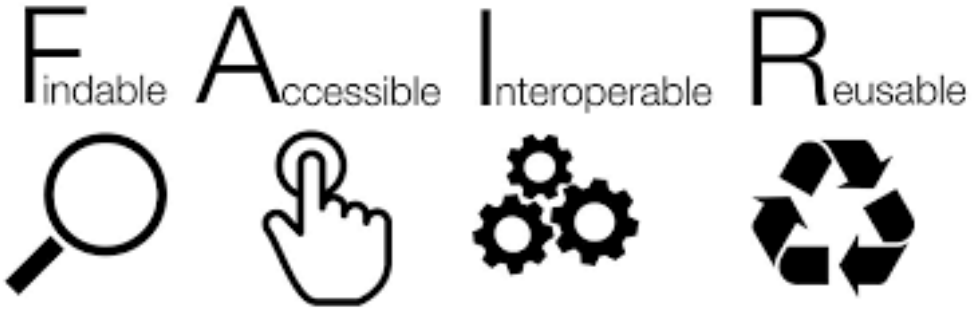
The Objective of Data Sharing

- Increase the transparency and reproducibility of research
- Helps enable open research alongside open access publications
- Data Sharing aims to be, if it is not already, one the main pillars of open research.

Data Sharing can

- Increase the speed of discoveries and advancements
- Create a more open and ethical field

"The recorded information (regardless of the form or the media in which it may exist) necessary to support or validate a research project's observations, findings or outputs, or which is required for legal, (funder), or regulatory compliance."
The University of Oxford Policy on the Management of Data Supporting Research Outputs



Data Sharing considerations

- All Datasets on which the conclusions of the paper rely, should be made available to the editorial team (for some journals this is mandatory for readers too)
- Data should be deposited in suitable repositories (persistent identifiers, version control etc.)
- **Sensitive data** should be made available via a **managed access** route

What is '**sensitive**' data?

Any dataset which contains detailed information about something that is expected to be kept confidential. Such datasets need to be anonymised and appropriately codified before they can be shared more widely. Examples of sensitive data:

- Where the data includes personally identifiable information, e.g. names, medical ID numbers, social security numbers, telephone numbers, photographs, biometrics information
- If the dataset contains information on confidential locations which can lead to harm if made public;
- Restricted information (e.g. financial or proprietary information)

https://editorresources.taylorandfrancis.com/publishing-ethics-for-editors/publishing-ethics-faqs

Publication ethics - issues that can arise

- Authorship
- Competing interests
- Data or image fabrication/falsification
- Plagiarism/ text recycling
- Duplicate submissions
- Peer review manipulation
- Breaches of copyright

www.icmje.org/

www.publicationethics.org

Authorship

What are the issues?

Ghost, **Guest** and **authorship for sale**

Who qualifies?

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.

Any listed author is a representative of the published paper and should have in-depth knowledge about all aspects of the study as published (i.e rationale, methodology, analysis and interpretation)

Duplicate submission

One journal at the same time

Authors make declaration upon submission that content is original and has not been submitted elsewhere

Multiple pre-submission queries are okay

When is it ok?

- Article was published in another language (at Editors discretion. Must be made clear which version is a translation)
- Data presented at conferences (posters, short abstracts)
- Posted in a repository/pre-print server

Originality

Plagiarism

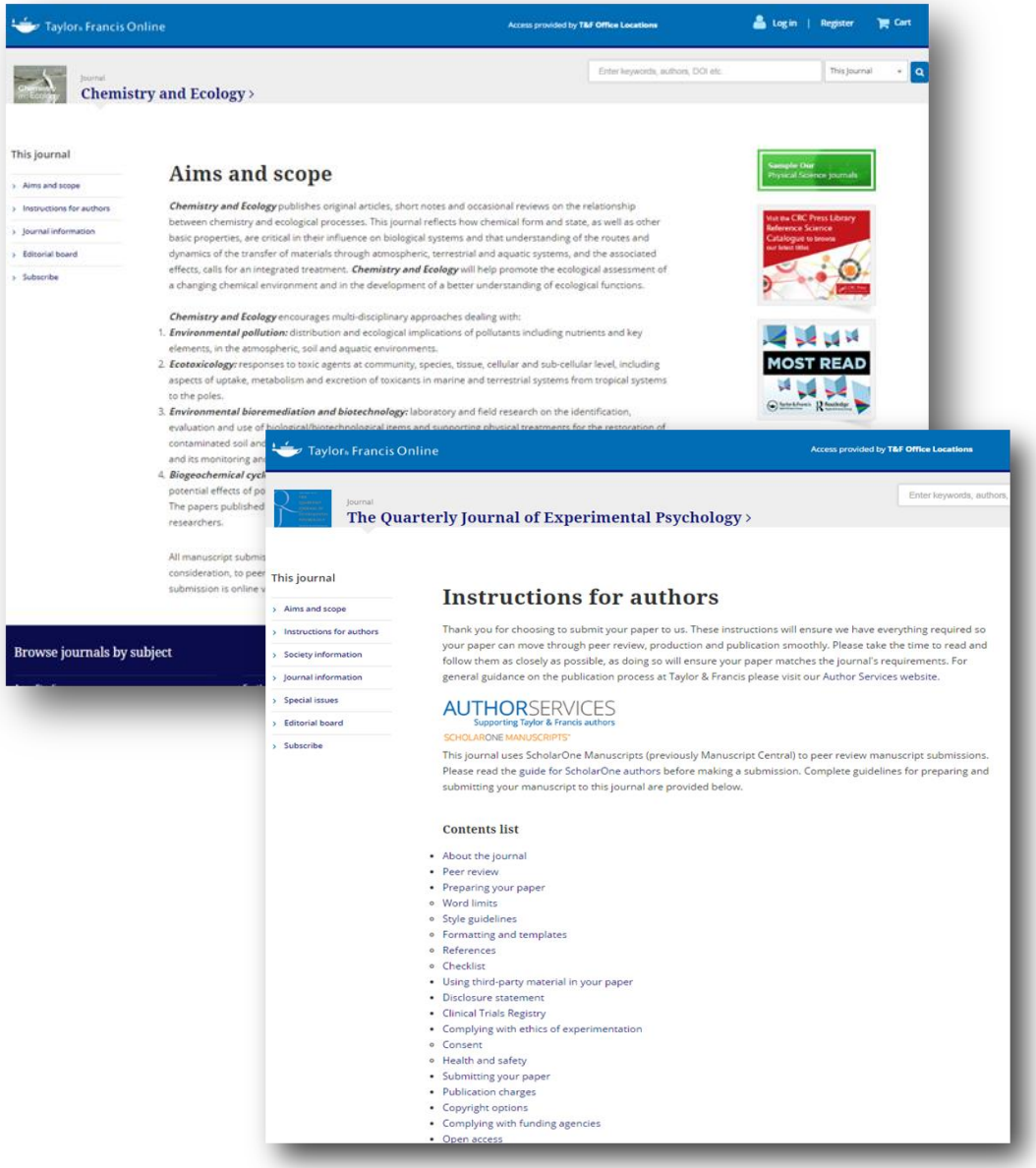
- The appropriation of another person's/groups ideas, processes, results, or words without giving appropriate credit
- Includes content from books and websites (blogs)

Text recycling/self-plagiarism

- The excessive repeated use of own work (text, figures, data, ideas, etc)
- Leads to redundant publication
- Distorts the scientific record

Before you submit

- ✓ Look at published papers
- ✓ Review the Aims & Scope
- ✓ Check the bibliography
- ✓ Explain acronyms & unusual terminology
- ✓ Follow the Instructions for Authors
- ✓ Format your article to the journal
- ✓ Review the submission process
- ✓ Consider English 'polishing'



Submitting a manuscript to a journal

Before you start, make sure that you have the following:

- All the manuscript files, figures, tables and any other data files which may make up your submission
- Permission to use images and data
- Email addresses for all your co-authors and their names (check spelling!) as they would want them to appear in the final citation of a published paper
- Agreement with co-authors on publishing choices and responsibilities
- The correct, anonymized version of your paper

What do you see as the best benefit of peer review?

Flicker/AJ Cann CC-BY-SA

Types of peer review

Single-blind/ Single-anonymous

- Reviewers know the identity of the authors
- Authors do not know the identity of the reviewers
- Most common model of peer review in STM

Double-blind/ Double-anonymous

- Reviewers do not know the identity of the authors
- Authors do not know the identity of the reviewers
- Most common in HSS

Open peer review

- Reviewers know the identity of the authors
- Authors know the identity of the reviewers
- Reviewer reports may be published with reviewer names if article accepted

Who is involved?

Editor

- Assesses the article
- Usually selects suitable reviewers
- Makes decision on publication

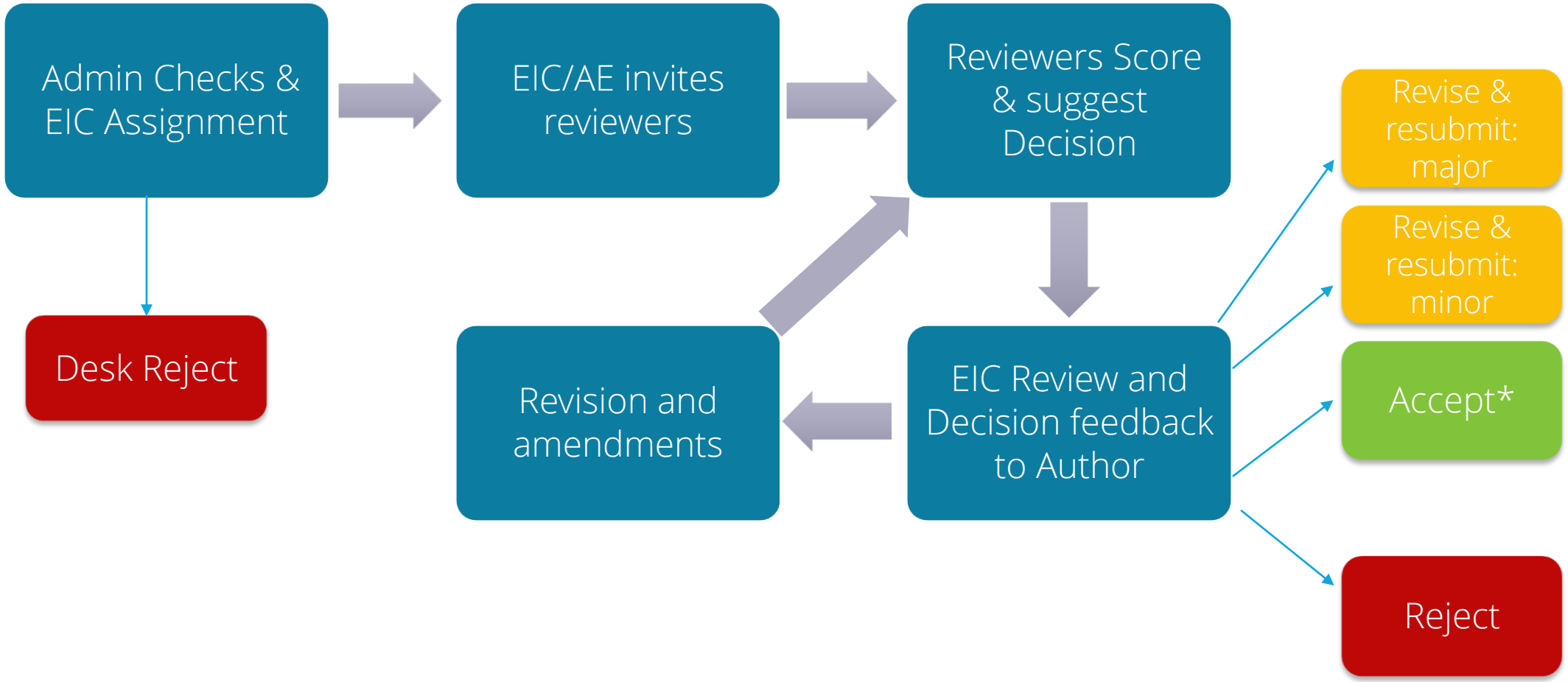
Reviewers

- Assesses the detail
- Give advice and expertise to the Editor

Journal staff

- Check format and journal requirements
- Manage communications
- Production processes once article accepted
- Maintain journal systems and websites

The peer review process



Responding to reviewers comments

1. Don’t become disheartened.
2. Carefully read the decision letter.
3. Consult your co-authors.
4. Break down the comments by category-create a list.
5. If the peer reviewer has misunderstood something, revise your explanation

Make it easy for the editor

6. Address every comment
   - Where you amended (page number, new material)
   - Why you didn't amend (be specific and again, respectful)

7. Review the response twice to make sure it is clear and deviod of any frustration

8. Be professional and respectful of the reviewers and editor

9. Remember: the reviewers are trying to help you publish your best work

How many of you have had an article rejected?

Photo by Jakayla Toney on Unsplash

Top reasons for rejection

1. Choosing the wrong journal
2. Not a true journal article
3. Not following the journal's author guidelines with regards to formatting
4. Poor style, grammar, punctuation or English
5. Manuscript lacks structure and is difficult to follow
6. No contribution to the subject
7. Not properly contextualised
8. Libellous, unethical, rude or lacks objectivity

How Researchers Changed the World

Consider the publishing process before your study begins

It's useful to understand the process of publishing your work in a scholarly journal before you start your research. This is for a few reasons:

1. The timeline of your study

Some journals put out calls for papers around specific topics for special issues. You may therefore want to see if any of the journals you're particularly interested in publishing in (we'll cover choosing a journal in chapter 3 of this learning program) have an upcoming issue in your subject area. If they do, and you'd like to submit your work, you'll then need to work this deadline into your study.

2. Research paper vs review paper

There are a few different ways that you can present your research in scholarly writing. For a start, you may be considering whether you want to publish your research in a journal, or as a book. If you decide to publish in a journal, you might be writing up your original research and findings as a research paper. Alternatively, you may be conducting a review of existing research in a literature review paper. Which route you choose will impact the timeline, execution, and writing up of your work.

3. Ethical guidance

Every subject area has ethical guidance (we'll be covering this in more detail in chapter 2), especially when it comes to clinical or medical research.

All reputable academic journals also work to common ethical standards. These focus on areas such as authorship, declaring funding sources and conflicts of interest, and plagiarism. Any prospective author must abide by these standards in the way they conduct their research, write it up, and conduct themselves through the submission and peer review process.

4. Funding stipulations

If you have funding or a grant for your research, then there may be stipulations around how you publish your research. For example, you may need to make your final published article open access at the point of publication or at a certain point after publication.

We'll cover open access publishing in chapter 3 of this program, but for now just know that your funding may influence the journal(s) that you choose to submit to.

5. Is this the right time to publish?

Publishing is an important part of your career as a researcher, and so there can be pressure to publish your work early on. But getting your research published isn't as simple as submitting your PhD thesis to a journal. You're unlikely to get your research published if it isn't a high-quality piece of work, presenting original or innovative evidence, or focused on impact within (or beyond) your field.

So, if you're looking to publish, approach your study design and write up with this in mind.

The process for publishing research in a journal

Submitting your research to a journal can be a lengthy process, involving a series of steps that ensure published research is as robust as it can be. To minimize delays, you need to invest time up front to ensure it is the very best reflection of your study.

You also need to be prepared for your work to be scrutinized and the process of peer review often includes an element of back-and-forth (two rounds of review and revision is most common). This can be a frustrating time as you've been working on your paper for a long time and are eager to see it published; it is, however, an integral part of the process.

Peer review is designed to assess the validity, quality, and often the originality of papers for publication. Its ultimate purpose is to maintain the integrity of research by filtering out invalid or poor-quality papers. For publishers, peer review functions as a filter for content. It ensures the papers published in journals are high-quality and match the needs and standards of the researchers who read those titles.

It's therefore important to be aware of, and prepared for, this process from the start. That way you can build it into the timeline of your work and ensure that you stay motivated throughout.

The graphic on the following page gives an overview of the full process of publishing an article in an academic journal.

www.howresearchers.com | @howresearchers | #howresearchers

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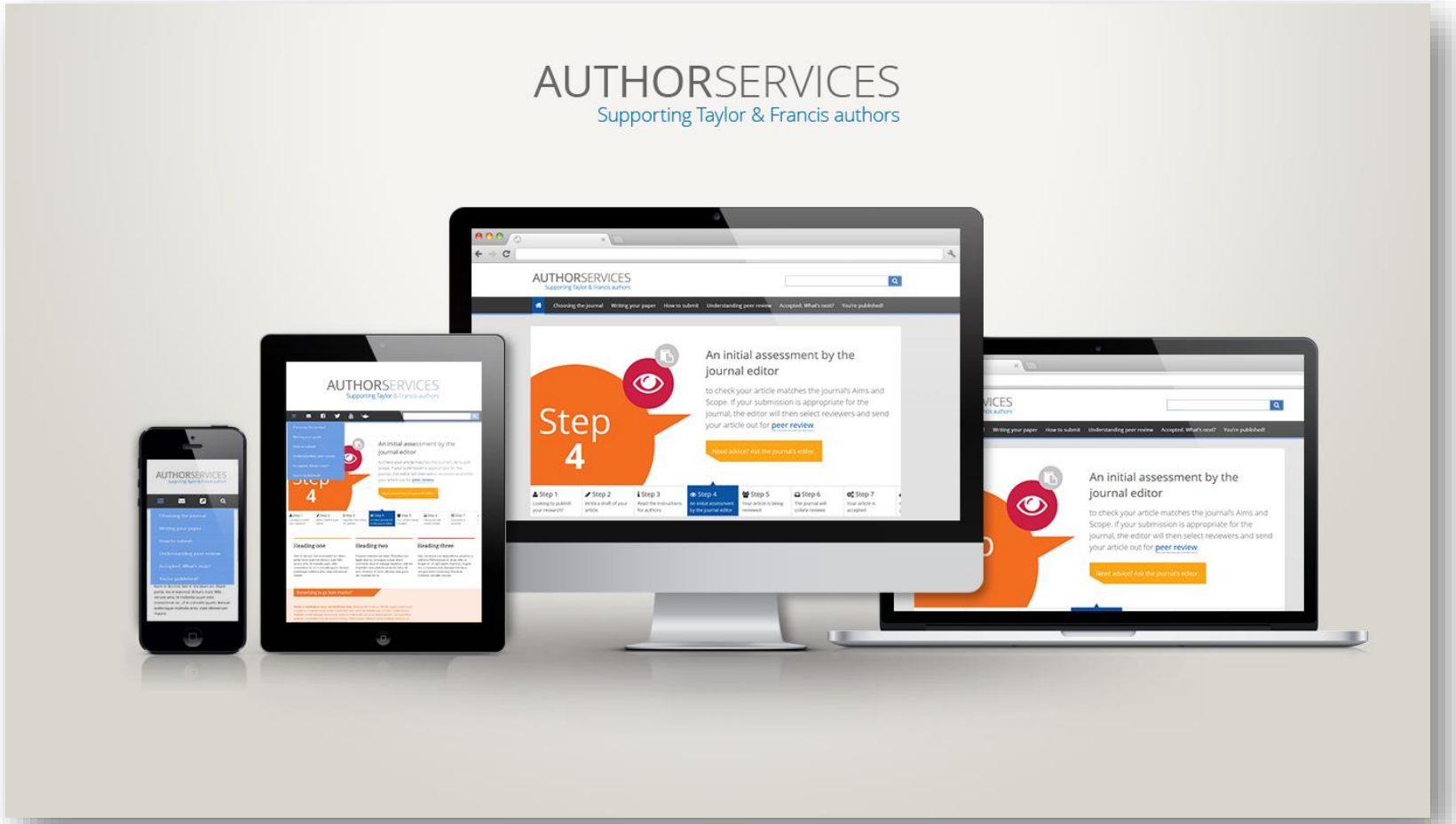
www.howresearchers.com

Guidance, news and ideas for authors



authorservices.taylorandfrancis.com

Questions?

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Watch previous recordings of previous events and learn more about our Medical Library here: https://go.taylorandfrancis.com/medical-webinars