All journals should have a policy defining authorship – here's what to include

Scientific research papers with large numbers of authors have become more commonplace, increasing the likelihood of authorship disputes. **Danielle Padula**, **Theresa Somerville** and **Ben Mudrak** *emphasise the importance of journals clearly defining and communicating authorship criteria to researchers. As well as having a policy for inclusion, journals should also indicate unethical authorship practices, clarify the order of authors at an early stage, consider recognising "contributorship", and refer any disputes that do arise to the authors' institutions.*

In recent years, scientific research papers with lengthy author lists have become more commonplace, with some extreme cases of author lists in the thousands. A prime example is a physics paper from two teams working on detectors at the Large Hadron Collider at CERN that set a record for the largest author list with over 5,000 authors. Papers with authors in the hundreds or thousands add more complexity to author list review for journals and also increase the likelihood of authorship disputes, which can draw out the publication process.

Gratefully for academic journal editors, such author list extremes are rare, but even the average number of authors on biomedical papers in Medline has now reached 5.5, which is quite enough to worry about. It's imperative for academic journals to develop authorship policies so that they have a process for assessing lengthy author lists as well as guidelines for dealing with authorship disputes.

Authorship is a main factor in researchers' career advancement, so it is important for journals to take it seriously and apply fair and consistent standards to all published works. In the Guide to Managing Authors, a new free training course from Scholastica, American Journal Experts, (AJE) and Research Square, we overview the key areas of author management that all journals should prioritise, authorship being chief among them. Below is an excerpt from the course on best practices journals can follow to define authorship and communicate authorship criteria to researchers.

How to define authorship

The prevailing standard for defining authorship in scientific publishing comes from the International Committee of Medical Journal Editors (ICMJE). These standards are broadly applicable in journals across disciplines and are a great place to start when creating or iterating on journal authorship policies. According to the ICMJE, an author is someone who meets all of the following criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work
- Drafting the work or revising it critically for important intellectual content
- Final approval of the version to be published
- 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.

In short, each author should have made an important contribution that enabled the study to be completed, be aware of how the results were presented, and be willing to stand up for the final manuscript. Beyond having a policy for inclusion, it is also best practice for journals to indicate authorship practices that are unethical, such as:

- *Guest/honorary authorship*: inclusion of someone who did not contribute, in order to capitalise on their name recognition or out of a sense of obligation
- *Ghost authorship*: omission of a rightful author from the final list.

The recently defined CRediT taxonomy has been used by several journals as a way to clearly demonstrate each author's role on a given paper. Journals can present the CRediT taxonomy criteria (or a version of them that is appropriate for the journal) front and centre to provide a clear overview of authorship criteria.

Author order

In a handful of fields, authors are listed alphabetically (these are the easy ones!). However, in many others, the order in which authors are listed has implications for the authors. The first author is generally considered to be the primary contributor, and the last author may be seen as providing general oversight and direction (as the head of the lab, for example). Authors in the middle have contributed sufficiently to be listed on the paper, but perhaps in more limited ways than the primary authors.

To prevent what can be a long, protracted dispute later, it is best for journals to ensure that author order is correct when they first receive a manuscript. The ICMJE recommends getting confirmation from every author listed on the paper that they contributed to the work and agree with the order in which they appear on the author list.

Contributorship

Researchers, or anyone else who has contributed to a paper in a meaningful way, who fall short of the requirements for authorship should still be recognised for their work if possible. Often this takes the form of an "Acknowledgments" section. Although contributorship does not have the career implications that authorship does, it is still a public recognition of work that contributors will appreciate and can benefit from.

Some examples of contributorship include:

- General oversight of a research group
- Administrative or technical support
- Writing and editing assistance
- Assistance in conducting research or analysing data, but without substantially affecting study design or interpretation (e.g. transcribing survey results).

Settling authorship disputes

The best safeguard against authorship disputes is ensuring that authors are aware of journal authorship criteria and agree to their place in the author list order *before* their paper is accepted and published. If an authorship dispute should arise, it's important that journals do not attempt to serve as an arbiter or intermediary. In cases where authors are unable to reach a consensus, journals should refer them to their institution(s). It is not the journal's role to be the judge of who is correct.

Ensure all authorship decisions are approved by the group

Whether working on a manuscript with two or 20 authors, trying to communicate with multiple authors at once can be challenging for editors. For this reason, it's best for the editor and authors involved to establish one "corresponding author". Journals should require the corresponding author to verify the author list with all other authors and to serve as the primary contact for all other ethical assessments. Clear authorship policies and communication strategies make the submission and publication process smoother for all involved.

This blog post features an excerpt from the Guide to Managing Authors, a free training course for journal editors on best practices for managing authors throughout peer review and production created by Scholastica, American Journal Experts, and Research Square.

Featured image credit: Working by LinkedIn Sales Navigator , via Unsplash (licensed under a CC0 1.0 license).

Note: This article gives the views of the authors, and not the position of the LSE Impact Blog, nor of the London School of Economics. Please review our comments policy if you have any concerns on posting a comment below.

About the authors

Danielle Padula heads up community outreach at Scholastica, a web-based software platform for managing academic journals with integrated peer review and open access publishing tools. Danielle manages the company's blog and creates resources to help journal editors and researchers navigate the evolving journal-publishing landscape.

Theresa Somerville is the Marketing Communications Manager at AJE, where she works to provide helpful resources and information to researchers across the globe. Prior to joining AJE, Theresa worked in the non-profit sector to create both business and educational opportunities for citizens in her community.

Ben Mudrak is the Outreach and Communications Manager at Research Square (the company behind AJE), where he has worked since 2007. He graduated from Duke University with a PhD in Molecular Genetics and Microbiology and performed over eight years of research on pathogenic bacteria at Duke and the University of North Carolina at Chapel Hill.