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Double Publication

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Peer-reviewed journals almost always have a restriction against double publication – submitting for publication a manuscript that is substantially the same as one that has already been published by another peer-reviewed journal. A related concept is double submission, where the same or substantially the same manuscript is under consideration for publication by two peer-reviewed journals simultaneously. At JM³, for example, manuscript submission includes a requirement that the submitter acknowledge any prior publication of any of the major results/data/figures/etc. found in the submitted manuscript. But while submitting a manuscript that has already been published is an obvious problem, defining when duplicate content crosses the line to duplicate publication is not always easy. What, exactly, does "substantially the same" mean?

1 Something Old, Something New

Among other criteria, a manuscript must contain something novel to make it publishable in a peer-reviewed science journal. But not everything discussed in a paper must be novel. It is common for a paper to begin by discussing prior (already published) results before moving on to what is new. It is the authors' responsibility to clearly differentiate between prior work and new results. This can be done explicitly through direct language ("Prior work has shown..."; "In this work, we measured..."), or implicitly though the use of citations. Statements that end in a citation are understood to be descriptions of prior work. Conversely, statements of results without citations are generally assumed to be novel, presented in this paper for the first time.

This is where authors sometimes get themselves into trouble. Sloppy citation practice can lead to an assumption on the part of the reader (or editor or reviewer) that prior work is being claimed as something novel in this new work. And while most authors are reasonably careful about not making such a mistake when it comes to other people's prior work (thus avoiding implications of plagiarism²), they are often much less careful when citing their own prior work. "Who does it harm," the thought goes, "if I fail to cite my own prior work?"

Two harms result from the absence of necessary self-citations. First, since the exact author lists of the previous and new paper are often different, failure to cite prior work that

is re-presented in a new paper will usually leave someone with too much or too little credit. Second, failing to cite one's prior work could be viewed as an implicit (and undeserved) claim of novelty.

Which brings us back to the topic of double publication. My rule of thumb is that at least 50% of the major results/ data/figures/etc. found in a manuscript submitted to a peer-reviewed journal must be novel to permit publication. This is just a guideline, however, and depends somewhat on the significance of the new results. Obviously, having the new material clearly distinguishable from the old is a requirement for assessing whether a submitted manuscript presents new science, or is "substantially the same" as one or more prior publications. It is a serious ethical lapse to purposely leave out citations to one's own prior work in order to try to pass off a substantially duplicate paper as something new.

In summary, proper citations are necessary for many reasons, not the least of which is to distinguish what is novel in the paper.³ The criteria for proper citations do not depend on whether the prior work is your own or someone else's, or whether the prior work was published in a peer-reviewed journal, conference proceedings, or some alternate publication medium. Sloppy citation practice veers into citation malpractice when leaving off a citation helps to induce an editor (or reviewer or reader) to believe that something old is something new.

2 The Role of Conference Proceedings

Let me repeat my definition of double publication: submitting for publication a manuscript that is substantially the same as one that has already been published by another peer-reviewed journal. The last constraint, that only peer-reviewed publications are considered when evaluating double publication, is not universally adopted in scientific publishing. Some journals are far more restrictive, banning duplicate content from conference proceedings, conference abstracts, website postings, or even press releases.

SPIE has a fairly lenient policy about submitting the content of conference proceedings papers to one of its peer-reviewed journals. The reason is simple: SPIE recognizes the important and unique role of conferences, and their proceedings, in the growth of scientific knowledge as complementary to the important role of peer-reviewed journals. Our philosophy is that conferences and journals should work together rather than in competition. Conference proceedings provide a record of the conference, a snapshot in time of a rapidly developing field of science or engineering. Peer-reviewed journals provide an asynchronous look at a completed effort (or at least a milestone in a larger effort), carefully presented to provide lasting value to the scientific community.

Because both types of publications are important, SPIE allows previously published conference papers to be submitted, whole or in part, to an SPIE peer-reviewed journal, given that certain criteria are met. Here is SPIE's policy on submitting a conference proceedings paper to an SPIE peer-reviewed journal:

Distinction between proceedings and journal papers: Conference proceedings provide a vehicle for rapid

reporting of ideas, techniques, and results. It is not uncommon for these reports to be somewhat incomplete and inconclusive. The purposes of proceedings papers range from snapshots of recent or continuing work to the reporting of a completed work or project. Journal papers are expected to be original, complete, and polished; to contain comparisons of theoretical and experimental results; and to include substantial conclusions and comprehensive references to other work.

Revision of conference proceedings manuscripts for journal submission: SPIE publication policy permits manuscripts based partly or entirely on scientific content previously reported in SPIE proceedings to be submitted to SPIE journals. In most cases, it is anticipated that the journal submission will represent a substantively expanded, refined, or otherwise revised manuscript relative to the related proceedings paper to fully satisfy the standards of significance, originality, and presentation quality that may result in acceptance through the journal peer review process. A manuscript submitted to an SPIE journal that incorporates minimal or no revisions over a prior or concurrent SPIE proceedings paper may be considered for publication in an SPIE journal and admitted into the peer-review process provided the submission fulfills the requirements of significance, originality, and completeness expected in a journal submission. SPIE does not consider publication of an accepted journal article based on a prior proceedings paper to constitute double publication.

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Journal submission format: All proceedings manuscripts submitted to an SPIE journal must be prepared according to the guidelines of that journal.

3 Conclusions

Unfortunately, I sometimes have to deal with the problem of double publication. Occasionally, the problem is unintentional, the result of sloppy citations and lack of consideration of the topic. More often, authors are trying to inflate their publication counts by spreading a body of work too thin and over too many papers. I hope that authors will take the lessons of this editorial seriously and I will have fewer and fewer of these issues before me over time.

Chris Mack Editor-in-Chief

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