Double Submissions – Publishing Misconduct or Just Effective Dissemination?

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ABSTRACT
As the community develops an ever more diverse set of venues for disseminating and discussing technical work and as the traditional resource constraints change from pages and shelf space to reviewer time, the traditional prohibition against double submission deserves closer consideration. We discuss reasons why double submissions have been frowned upon, and try to establish a set of guidelines that ensure appropriate review and dissemination, without preventing informal early discussion of research projects.

Categories and Subject Descriptors
A.m [General Literature]: Miscellaneous—conferences, reviewing

General Terms
Management

Keywords
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1. INTRODUCTION
Double submission belongs to the category of scientific or publishing misconduct, along with its better-known cousins of plagiarism and falsification. We define double submissions as the submission of a paper to a conference or journal after that paper or an essentially similar paper has either already been published elsewhere or is under concurrent review by another publication. The re-publication of a paper that has already been published elsewhere is also sometimes called self-plagiarism. Also, instead of “double submission”, the term “multiple submission” is used in some contexts, such as in policies published by IEEE. For simplicity, I will use the term double submission to refer to the attempt to have the same content peer-reviewed and published more than once.

Some common publishing practices look like double submission, but do not raise the same issues. For example, it is common that selected papers from conferences are published, with an abbreviated review process, in a special journal issue. In that case, the earlier conference reviews are incorporated in the journal review process, and the final conference version as well as the journal version hopefully addresses the concerns raised by the reviewers. Similarly, submitting an expanded version of a conference paper to a journal does not raise the concerns enumerated later, as long as the journal version adds significant detail or additional results to the conference paper. Many journals require that the journal submission add at least 25% to the conference version, although this is becoming more difficult to make work as journals cut their page limits sometimes to below those of some conferences.

Thus, I am only concerned with concurrent submissions of the same or similar material to two conferences, i.e., submitting a paper covering the same ground to another venue while the first submission is still under review. There are at least two motivations for this: First, an author may want to have the work appear in as many venues as possible, either to boost publication counts or to reach a larger audience. (Presumably, both submissions will have to have different titles to achieve the desired resume-padding effect.) As a second motivation, a tactically-thinking author may want to hedge his bets on a paper and submit it to two conferences, maybe one more selective than the other. If the “better” conference accepts the paper, the author withdraws the similar paper from the less-prestigious conference. From the author’s perspective, this reduces the publication delay, rather than having to go through the common trading-down sequence where a paper is first submitted to a selective conference and then, upon rejection, to the next lower tier.

In general, compared to the classical scientific misconduct of data falsification and plagiarism, double submission remains poorly understood. For example, as the operator of the EDAS conference management system, I receive questions with some regularity as to why the system will not let the author submit a paper with the same title to another conference or how to automatically submit the same manuscript to a set of conferences. Carland et al. [1] also note this discrepancy and suggests a code of ethics for authors. Stone [2] highlights how the review practices in different fields, even for conference proceedings, shade the discussion as to what constitutes an objectionable double submission.

2. ARE POSTERS DIFFERENT?
While most authors would consider submission of the same
full paper to two conferences to be clearly out of bounds, there has been less consensus on other scenarios, e.g., submitting a paper to a workshop as a poster submission and, concurrently, to a conference as a regular paper.

I do not think it much matters that a poster or workshop presentation has a different format and maybe a shorter representation in the proceedings. What matters is the core technical content, not whether some implementation details and graphs are omitted.

This discussion is made more complicated by the fact that the treatment of poster submissions, in general, differs greatly between conferences. Some subject such submissions to very limited review, e.g., the PhD student posters at ACM CoNext, while others are reviewed at the same depth as regular papers. For some conferences, some sessions are more or less randomly designated as poster sessions, while others feature oral presentation, with IEEE Globecom being one such example. Other conferences move papers that fall just below the cut-off into poster sessions, converting them to short papers. Finally, the proceeding version of a regular and poster paper may be the same or the poster paper may get a one-paragraph abstract — and anything in between. With these distinctions, it is too simplistic to assume that all posters uniformly represent early work.

3. WHAT’S WRONG WITH MORE DISSEMINATION?

One could argue that presentations in multiple venues ensures that good work gets to be known, particularly as the community is increasingly fragmented into ever more narrowly-targeted conferences, both by topic and geographic region.

Before considering the specific case of poster submissions, it might be worth going back to the question of why the computer science community, in general, frowns upon double submission. I can think of five reasons:

1. Avoid wasting reviewer resources, as we do not want to have very similar technical content reviewed six or more times, without the author having had a chance to incorporate the earlier feedback.

2. Avoid “double credit”, i.e., authors should not pad their publication count by republishing essentially the same content except under well-recognized circumstances.

3. Listen boredom — nobody wants to attend a conference where half the presentations are re-runs.

4. Avoid wasting trees and library shelf space. Why print the same or very similar material twice?

5. Avoid reader confusion and waste of time. A diligent graduate student is likely to be very disappointed if the student tracked down what appears to be another paper on the topic of interest, just to find that it is the same as another paper she already had, and even more so if she had to pay for the copy. This case would likely occur only if the second submission has a different title.

In addition, the “late withdrawal” case mentioned earlier, where authors withdraw papers from consideration at one conference once they have been accepted at another, is likely to make conference scheduling difficult, particularly if such behavior were to become more common.

I believe that the waste of paper has become somewhat less important, and listener boredom does not factor if one of the formats is a poster, since the attendee can easily skip a poster that represents work they are already familiar with. Double counting remains a problem if the paper titles obscure the similarity. (We’ll leave it to another editorial to bemoan the rise of publication counting in tenure and promotion decisions.)

This leaves the first reason. Good reviewers remain a scarce resource, and we should husband such resources. Thus, I believe that, in general, such concurrent submissions are something we do not want to encourage or permit. Once it becomes known that such concurrent submissions are acceptable, there will be a strong temptation of more and more authors to submit papers to as many conferences as possible. However, if the poster does not consume any or minimal reviewer resources, the objections seem less strong. We routinely expect work under submission at a conference to be presented as posters at various local events, such as industrial affiliate or grad student research fairs, for example. Indeed, too unflexible a policy on such cases would starve such poster events of many of their best submissions.

Inappropriate double submissions, even if rare, remain an annoying distraction to conference organizers. The problem is often discovered late in the review process, possibly after acceptance decisions have been made, and thus can lead to gaps in the program. Thus, penalties and clear rules are necessary to discourage such behavior, as discussed below.

4. PENALTIES

Traditionally, the penalty for an inappropriate double submission has been automatic withdrawal from both conferences. This appears to be the only option that conferences can take locally. This penalty is also only effective until the conference starts; it is not clear whether such papers have been removed from the digital libraries of the technical societies if this was discovered after the fact.

In general, it is unclear whether certain authors are serial offenders or whether this problem is mainly a “crime” of opportunity, facilitated by lack of supervision of eager graduate students by senior faculty. If this is a more widespread problem or if a small group of authors engage in such conduct repeatedly, it may become necessary to track such behavior, along with other author misconduct, so that we have data rather than just anecdotes.

The IEEE has a fairly elaborate policy to deal with multiple submissions, discussed in Section 8.2.4.F of the IEEE PSPB Operations Manual. The basic pattern of unauthorized multiple submissions appears to be a warning that this behavior constitutes “inappropriate scholarly practice”. Subsequent offenses may include a ban on submitting papers to any IEEE publication for one year. The IEEE maintains a prohibited author list that tracks such offenders. In my opinion, the process has shown itself to be somewhat cumbersome. The Prohibited Authors List (PAL) is only used by very few paper management systems, and can only match on

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1 However, the author’s most recent experience with double submission involved senior faculty that definitely should have known better and were unapologetic when confronted with the fact.
first and last name, yielding a time-consuming and awkward process of deciding whether the author submitting a paper is indeed the “offending” author, particularly for names that are relatively common. (For example, one name on the PAL appears about thirty times in EDAS, a conference management system written by the author.) Secondly, societies seem to struggle with defining a process that makes it easy for an ever-changing set of conference chairs to convey such information, so that it is tempting to simply deal with the problem for each conference, so that repeat offenders are not likely to be identified.

Based on personal experience, authors often claim ignorance of these customs and rules. Such claims are hard to evaluate, but it seems clear that attempts of the authors to obfuscate the essential similarity to work submitted elsewhere by, for example, changing only the title and abstract, indicate malice rather than ignorance. Such attempts may well also draw the attention of tenure and promotion committees, particularly in institutions where publication counts factor into promotion decisions.

5. RECOMMENDATIONS

Based on the discussion above, I offer a few recommendations on how to deal with this problem.

- Societies and SIGs need to establish clear guidelines establishing when submitting essentially the same content to two venues is appropriate and when it constitutes author misconduct, and should clearly state the consequences of violating these rules. Since most conferences and workshops appear to disallow double submission, the statement should probably define a default of disallowing them. For example, it could state: “Submitting substantially the same material to two conferences while it is still under review at another conference is not permitted unless all conferences receiving the manuscript have indicated that they do not object to this submission.” An important facet of this policy suggestion is that all venues need to agree to the simultaneous review; it is not sufficient that just the one receiving the manuscript last has no objection.

This intentionally puts the burden on the authors to ascertain exceptions by consulting the conference chairs rather than relying on conference organizers to remember to state their policy in every version of the call-for-papers.

ACM has a simultaneous submission policy. It focuses on whether the conference has a formally reviewed proceedings and emphasizes the authors should indicate to the editor-in-chief or program chairs if a paper has been previously published or simultaneously submitted. However, it relies on conferences to publish policies that prohibit double submission, rather than requiring that conferences explicitly allow such submissions.

- Because author disclosure avoids potential misunderstandings, conference submission systems should require authors to confirm that their submission conforms to the conference and society rules for double submission and plagiarism and might allow authors to indicate whether all or part of the material is under review or has been published elsewhere. This may reduce the “I didn’t know” instances and may get overeager graduate students to step back and discuss their submission with a more seasoned researcher.

Editors and conference chairs can then make a case-by-case determination of the circumstances, and avoid the suspicion that the authors were trying to hide something. If this information is made available only to chairs, this is unlikely to weaken double-blind reviewing.

- Societies should encourage chairs to report instances of author misconduct confidentially, so that the community can get a better sense of whether this remains an occasional honest mistake or is becoming a problem that requires more elaborate means of detection and tracking.

- Major conferences could offer hold training sessions for graduate students and other researchers early in their career, addressing these and other issues related to publishing and reviewing.

6. CONCLUSION

Double submission remains the publishing misconduct that seems least understood by our community, with significant impact on conference reviews and conference program scheduling. Clear guidelines and training of our junior researchers can help reduce the problem to a rare nuisance, while allowing early dissemination of interesting new work.

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8. REFERENCES
