Two Publication Models
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I. The Cycle Model.

ICML 2013 experimented with a cycle model. In this model there is a series of reviewing cycles each one of which has a submission deadline, author response period, acceptance notification date, and camera-ready submission deadline. This model has the following features.

- The dates and deadlines ensure rapid reviewing and reduce the overhead of the reviewing process relative to traditional journal reviewing by allowing conference management software to be used to manage reviewing, say, 500 papers per cycle.
- Papers accepted in early cycles are published and citable shortly after the camera-ready submission deadline for that cycle. This aspect of the cycle model is similar to journals.
- Accepted papers are presented at the conference either as orals or as posters with spotlight presentations. This is a widely mentioned advantage of conferences over journals.

A survey of ICML 2013 authors indicated a roughly 4 to 1 support for the review cycle model. However, the support was lower for reviewers and area chairs. The review cycle model in some sense multiplies the reviewing effort by the number of cycles --- it is similar to reviewing for n conferences where n is the number of cycles. However, for ICML 2013 the number of papers per area chair per cycle was typically small --- perhaps five. If area chairs and program chairs know what they are committing to, the additional workload might be more acceptable --- people not willing to do the work can decline the invitation.

Two other issues are worth mentioning:

**Manual reviewer assignment.** Journal reviewing is often viewed as being more rigorous than conference reviewing. In particular, reviewer assignment for conference reviewing often involves a bidding process and may not ensure that qualified reviewers are assigned to each paper. This can be addressed by requiring area chairs to do careful manual adjustments to reviewer assignments and to seek reviewers from outside of the pre-recruited reviewer pool. Manual reviewer assignment would make the cycle model more similar to journal reviewing. Some conferences, such as STOC and FOCS, rely on the assigned reviewers to solicit outside reviews by experts in the narrow topic of the submitted paper. At ICML 2013 there was an attempt to ensure that each paper had at least one “expert” reviewer.
Long-term program chairs. Journals typically have long-term editors, both editors in chief and action editors. A dedicated editor in chief can leverage long-term experience to make various processes more efficient and effective. Conferences employing the review cycle model might benefit from long-term program chairs.

II. The Blog Model

In the blog model a paper is first self-published in an archival venue, perhaps ArXiv, and then publicized in blogs. Authors should be expected to publicize their own papers as well those of other authors. The blog model has the following features.

- Self-publication frees researchers to use their own judgment in deciding what is important for progress in the field. This may empower innovators relative to established academics.
- Readers can use their own judgment in deciding whether a paper is worth mentioning in their own blog or worth citing in their own papers. This may also empower innovators.
- This model exposes papers to the slings and arrows of blog posts. Search engines and Google Scholar should ensure that blog posts and their comments are well indexed.
- Blog commentary is not anonymous. Hence blog posts may be inhibited. But blog discussions and “likes” may make it clear that a particular view is widely held. Grass roots political support can be empowering.
- This model eliminates the concept of a deadline. This avoids forcing reviewers to read papers written in haste. But without deadlines students may not write papers at all.
- This model does not force anyone (any reviewers) to read a new paper. This should encourage researchers to have a large blog following through which they themselves can promote their papers.
- This model requires promotion evaluations to be based on something other than publication counts. Department heads, deans, and government funding program managers should have access to a variety of metrics perhaps including blog statistics.
- The blog model can evolve independent of any formal conference or journal system.

This model requires significant changes in academic culture. First, for any self-publication model to work there needs to be an increase in the rate at which self-published papers are cited. We would need to take responsibility for finding and selecting the papers we cite. Second, this model requires that we take blogging seriously. In this model blogs become the primary reviewing mechanism. We would need to consider blogging to be a required service. When requested to review a paper a researcher should be able to decline on the basis that they do their reviewing in their blog. I plan to start blogging soon.