

Considerations on open access publication and on the role and publication of conference proceedings

Position Paper for Dagstuhl Perspective Workshop 12452
“Publication Culture in Computing Research”

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POSITION STATEMENT

1.11.2012

DISCLAIMER. I currently hold the following positions in editorial boards: chair of the ETAPS Steering Committee; editor-in-chief of ACM Selected Readings; managing editor of Springer’s ARCoSS; editor of open-access Logical Methods in Computer Science; editor of Elsevier’s Theoretical Computer Science; associated editor of Oxford Press’ The Computer Journal; editor of open-access Electronic Proceedings in Theoretical Computer Science.

This position statement prepared as a contribution to the *Dagstuhl Perspective Workshop 12452* on the “*Publication Culture in Computing Research*.” It touches upon three issues that I consider central to formulate and promote a future publication strategy for Computing Research which may serve the discipline well and help strengthen it, both within its confines and in the wider scientific context. They are: (i) *open access*, (ii) *citation counts*, and (iii) the roles and relative merits of publishing in *conferences vs journals*. To these issues, my position at the current state of my knowledge, understanding and reflection on these matters is that our community should: (i) reconsider the merits of the ‘*author-pays*’ open access model; (ii) support community-owned, multi-party, possibly non-commercial, citation-count engines as well as research repositories; (iii) de-emphasise the perceived value of conference publications as viable –if not altogether superior– alternatives. I present below the considerations which led me to these views.

The Computing community makes a very significant use of conferences as a vehicle for the publication of short papers. Like in many other research fields, computing conferences provide an excellent context for early dissemination of results and interaction within the research community on ongoing research. Differently from many other fields, however, computing conferences –some indeed more than others– carry

highly-valued publications, which arguably absorb a high proportion of the community's overall workload. The question therefore arises as to whether such an effort is well spent, or whether an alternative strategy might be more profitable. Here in particular I would like to contrast the commonly-held notion that publications in journals takes a very long time with the amount of work each of us do for conferences. High-rank conferences typically provide authors with three or more reports of a quality and depth that is not unlikely to rival that of journals in other disciplines. And whilst we all strive to deliver our reports on time for a growing number of conferences, not very many of us seem to take deadlines for journal reports very seriously at all. Perhaps publication in journals would not need to take so long, were we to change this attitude.

One problem is that conference publications are not currently indexed by official collectors of bibliometrics, which are those who matter in 'official' contexts. Most often, later journal papers based on conference publications do not receive a significant number of citations, because authors keep citing the original conference paper. It looks to me as though our community is putting itself at a disadvantage with respect to other scientific communities by publishing our best results in papers whose bibliometrics do not matter. We should learn to publish conference proceedings in a bibliometrics savvy way. According to my knowledge some conferences (e.g., VLDB) are experimenting with the idea of publishing proceedings directly in journals, including the possibility of sending a submitted paper back to the authors for improvements. What an intriguing and refreshing idea! Is it portable? Can we really identify/create/develop a suitable set of (open access) journals to export this idea to other areas of computing? Whether or not this will prove a viable, I feel we should pay closer attention to the way in which bibliometrics are collected and clustered by organisations such as Thomson, which looks rather opaque to me.¹ I think this is an issue where the scientific community at large (not just computing) should lead rather than endure.

Possibly we would be better advised to de-emphasise the value of conference publications. It is easy to develop an inflated sense of the wider impact of a conference, just based on not-always-meaningful small acceptance ratio statistics. Also, as long as the reward from publication in our best conferences is sufficient for career progression, the incentive will be taken away from journal publication. Indeed, it is a fact that several significant results end up to never to be published as full articles. Also, as they become increasingly perceived as a vehicle for publication rather than for early communication of results and for the gathering of research communities, conferences tend to become a very expensive way to publish and partially lose their interactive 'raison d'etre.' I seem to notice a reaction to that in the flourishing of hyper-specialised workshop with small, selected pools of participants.

A closely related issue regards open access to research publications. Whilst the business practice of commercial publishers remains at time questionable, some practical and long-term concerns start to appear about community-managed publications. We need to find ways to monitor typographic production quality, to guarantee long-term open-access availability, to defend author-retained copyrights, etc, without overburdening the research community. I do not think that research communities should or could turn themselves into publishers, I can see no lasting value in that. We already have

¹The reader might e.g. like to try and understand how ISI subcategories are formulated ...

university-owned companies, learned societies, professional associations and commercial publishers. Whoever the publisher, publishing and distributing scientific research for the long term has a cost that must be covered. The idea that the community can control that cost by following the ‘author-pays’ model is interesting to me. The publication fee charged by a publisher under that model is in my view (and depending on its level) a legitimate dissemination cost, not much different from the travel and hotel costs we incur to take part in conferences. It may possibly be suitably supported by sponsors, grants, departments and universities. By choosing the outlet to publish in by also taking into account the level of the publication fee, will the community be able to bring those fees closer to the actual cost of the service?