The CoNEXT shadow TPC*

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ABSTRACT

This paper claims that Shadow Technical Program Committee (TPC) should be organized on a regular basis for attractive conferences in the networking domain. It helps ensuring that young generations of researchers have experience with the process of reviewing and selecting papers before they actually become part of regular TPCs. We highlight several reasons why a shadow TPC offers a unique educational experience, as compared with the two most traditional learning process: "delegated review" and "learn on the job". We report examples taken from the CoNEXT 2007 shadow TPC and announce the CoNEXT 2008 Shadow TPC.

Categories and Subject Descriptors

C.2.m [Computer Communication Networks]: Miscellaneous

1. INTRODUCTION

The International Conference on emerging Networking EXperiments and Technologies (CoNEXT) is a major forum for the publication of research on future networking technologies. CoNEXT 2008 will be organized in Madrid in December 2008, after three editions held in Toulouse (2005), Lisbon (2006) and New York (2007). CoNEXT is an ACM SIGCOMM sponsored conference since 2007. In addition to presenting high quality papers, and providing feedback to authors, CoNEXT puts an emphasis on its role to train young researchers. A successful student workshop, with student presentations and posters, but also invited talks and panels from senior researchers, has been organized in parallel with each edition of the conference. Paper reviewing and Technical Program Committee (TPC) participation is an important aspect of research, which is not a formal part of PhD curricula and is often neglected in a researcher's formal training. Indeed, all too often, young researchers learn to review papers by doing reviews delegated by a busy supervisor. Opportunities to participate in TPCs for highly selective conference, are very scarce in an early career.

A good way to progress from this situation is to allow young researchers to participate in a shadow TPC. Several such shadow TPCs have been organized in the past, notably the SIGCOMM 2005 shadow TPC chaired by Anja

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Feldmann or the SOSP2007 TPCchaired by Rebecca Isaacs. In this paper, we use the term "shadow TPC" to refer to a mock TPC that mimics the paper selection process of the associated main event and whose goal is therefore entirely educational. The CoNEXT 2007 shadow TPC that was chaired by Olivier Bonaventure, Laurent Mathy and Philippe Owezarski falls in this category.

2. THE CONEXT 2007 SHADOW TPC

The CoNEXT2007 shadow TPC was proposed in mid-June 2007, unfortunately only a few weeks before the submission deadlines. A call for candidates was sent on several mailing lists and 35 young researchers agreed to participate. Most of these were from Europe as the TPC meeting was held in Louvain-la-Neuve, Belgium, but shadow TPC members also came from Japan and the USA.

To build a pool of papers to be reviewed by the shadow TPC, we asked the authors of regular CoNEXT 2007 submissions to voluntarily submit their papers for consideration by the shadow TPC. More than 50% of the authors agreed.

We tried, as much as possible, to operate the shadow TPC in the same way as a regular TPC, with a one week delay compared with the official CoNEXT2007 TPC. This meant that the shadow TPC worked in four phases as described below. The reviewing process was carried out on EDAS, just like with the official CoNEXT 2007 TPC.

In the first phase, the shadow TPC members looked at all the abstracts to bid for papers. As with real conferences, some papers were requested by a large number of reviewers while others were requested by no shadow TPC member at all. The first lesson learned by the shadow TPC members was the importance of both the paper abstracts (as well as careful key word/topic selection) and the match between the topics of the submitted papers and the expertise of the TPC members.

The second phase was the paper review phase. The shadow TPC members reviewed the papers themselves, with no delegation allowed. As the shadow TPC was purely educational, we did not try, as in a regular TPC, to find external reviewers for papers for which there was no expert in the shadow TPC. The review forms were similar to those used by CoNEXT 2007 and the shadow TPC members were briefed about the importance of providing detailed text motivating their opinion in their reviews. The second lesson learned by shadow TPC members is that reviewing a batch of papers requires a good time schedule and helps young reviewers understand the balance between giving appropriate

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feedback and not rewriting the paper.

The discussion phase started shortly after the review submission deadline. The shadow TPC members responsible for each paper discussed the relative merits of the paper, using the discussion facilities offered by EDAS. Although EDAS allows reviewers to discuss anonymously, we opted not to use this feature and chose to reveal the name of review authors to all reviewers of a paper. We did this for two reasons. First, our experience is that without the cover of anonymity, discussions tend to be more balanced and reasoned. Second, both the regular TPC and its shadow do hold physical TPC meetings where the anonymity of reviewers cannot be preserved anyway.

We set a target of 15 papers for the final program (i.e. 20% acceptance ratio) and asked the shadow TPC members responsible for each paper to summarize the essence of their discussion and provide the following recommendations before the TPC meeting: clear accept (paper belongs to top 5% and must be part of the program), likely accept (paper looks good, but not in top 5%), borderline (paper has some merits but also some drawbacks, it could anyhow be part of the final program), likely reject (paper has many drawbacks or flows) or strong reject (paper cannot be accepted)

The fourth and final phase was the shadow TPC meeting, where most of the shadow TPC members met in Louvain-la-Neuve for one and a half day. We used a strict conflict procedure, whereby TPC members in any way related to a paper were asked to leave the room when that paper was being discussed. Although the anonymity of reviewers towards the paper authors is not a critical issue in a shadow TPC, we believe that training to correct procedures is critical.

To help calibrate expectations, a few papers from the strong reject category were discussed first. Papers were then presented in a "spiral approach" centered towards the borderline category. The discussions thus moved to the clear accept papers. Some of these papers easily reached an outcome, while some others had insufficient details in the review to allow the shadow TPC to decide. These papers were put on a list of papers to be revisited. The papers in the likely accept category were then discussed, followed by the likely reject and finally the borderlines. After this first pass over the papers, many of the shadow TPC members were very surprised. Indeed, the list of papers to be revisited was much longer than the list of accepted papers, which itself contained a number of papers far below our chosen target of 15. The shadow TPC then proceeded to revisit the many papers for which there was no decision, but with time passing fast, actually failed to clear this list and, as a result, also failed to identify a full 15-paper program. This, in itself, does not pose a problem: the "shadow program" is a mock program which has no influence on the conference program, and which, because of submission confidentiality reasons, cannot be published anyway.

Nevertheless, the shadow TPC meeting not only illustrated the difficulty in differentiating the relative merits of many papers, but also showed the importance of writing detailed reviews that are useful for **both** the TPC meeting and the authors.

The second day of the meeting was devoted to discussion and critical analysis of the review and paper selection process. First, a comparison of the results from the regular TPC and those from the shadow TPC was carried out. As the shadow TPC only worked on a subset of the papers

submitted to the main CoNEXT conference, the comparison focused on a few papers for which the decision was different in the regular TPC and the shadow one. Anonymous reviews from the regular TPC were compared side-by-side with the corresponding shadow reviews, and the reasons for the decision from the regular TPC were explained and contrasted to the reasons for the decision from the shadow TPC members. This discussion was important, as it allowed the shadow TPC members to understand other reasons to accept or reject papers.

Then, the floor was given to the shadow TPC members to provide some feedback and share their experience. Many participants said they better understand paper review and selection process, and that this would, indirectly, also improve the way they write papers. All participants encouraged other young researchers to participate in similar shadow TPCs.

3. WOULD YOU LIKE TO PARTICIPATE TO THE CONEXT2008 SHADOW TPC?

Based on the positive feedback received from both the members of the CoNEXT 2007 shadow TPC as well as from the paper authors, a shadow TPC will be organized again for CoNEXT2008. This shadow TPC will be chaired by Olivier Bonaventure and Augustin Chaintreau. As for the CoNEXT 2007 shadow TPC, participation is open to young researchers. Candidate shadow TPC members should have already submitted a few papers in one of the main topics of the conference. They should also have at least three years of research experience. Each candidate shadow TPC members must agreer to review up to about a dozen of twelve pages papers during the summer (this can take a lot of time), participate in the email discussion phase during the first weeks of September and finally attend the shadow TPC meeting in Paris in late September 2008.

To apply for the CoNEXT2008 shadow TPC, please send to shadow@co-next.net and before June 10th, 2008, the following information:

- Resume with list of submitted and accepted papers
- The topics from the CoNEXT2008 call for papers that fall within your area of expertise
- Contact information for at least one referee

We also encourage the candidates to write a few sentences explaining why they would like to participate in the shadow TPC. The shadow TPC co-chairs will evaluate the received applications and select by June 20th, 2008 a shadow TPC which has enough expertise on the conference topics.

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