

Report of the Peer Review Dialog Meeting

Chaired by Martin Schaffernicht

This meeting has been held since 2005. As in previous years, the attendees included members of the Policy Council. I wish to thank all of the participants for their time and for producing important arguments and suggestions. However, attention has to be given to the fact that most of the issues which have been discussed at this meeting were not new: They had been discussed at previous meetings. This indicates that the implementation of the suggestions has to be emphasized for the upcoming year.

This year's meeting dealt with the following topics:

1. Reviewers' ranking
2. Spread of review quality
3. Feedback to reviewers
4. Help for reviewers
5. Standardization of conference papers
6. Minimum requirements for papers dealing with unfinished work
7. Communicating recommendations to authors

Reviewers' ranking

There are about 600 reviewers. Thread chairs evaluate "their" reviewers' quality. The previous evaluations are taken into account in reviewer assignments to papers. However, a bad reviewing performance does not lead to deletion from the reviewers list: as has been argued before, reviewing is thought to help being integrated into the community and to help becoming better authors.

Spread of review quality

The quality of reviews is heterogeneous: some are very useful for the acceptance/rejection decisions; others plainly fail to understand the paper they review. Also, some are helpful for authors and others are useless. Too often, the review quality is too different. In order to maintain a balance, usually the mix of reviewers assigned to a paper is such that a concentration of poorly evaluated reviewers is avoided.

Feedback to reviewers

Currently, reviewers can receive feedback from the authors, but the thread-chair assessments are not fed back to reviewers. It has been suggested that this might be done to give them a signal for future reviews: since it has to be assumed that a reviewer would like to do a good job, this feedback would probably be helpful.

Help for reviewers

The website gives rather precise indications for reviewing; however, this has not prevented poor reviews. In order to go beyond feeding back these evaluations, it has been suggested that reviewers might be invited to a reviewing workshop.

In a similar vein, last year's report contained the following suggestion: "*There might be an exercise for reviewers. (New) reviewers can review selected papers and then compare their evaluations to selected reference-reviews of these papers. This also would enable to improve the quality of reviews. The development of this reference-review package is the responsibility of the VP Electronic Presence.*"

Standardization of conference papers

Currently, there is some discussion concerning a possible standardization of conference papers. This is a delicate matter: how many different types of contributions should there be and how

much can be standardized without becoming too restrictive? There are two possible ways to go about standardization: one can define a standard structure for each type of contribution, or one can define sets of attributes each kind of paper must/should have.

George Richardson, who will be co-chair of the programme for the 2011 conference, invites for proposals to be sent to him.

In this place, it may be worthwhile recalling some suggestions from the 2009 dialog meeting report (Schaffernicht and Groesser, 2009):

“For the main types of contributions – as of now, these are (1) model based papers and (2) methodology papers – specific guidelines should be defined and made available to authors and reviewers as a checklist for writing a paper and assessing the paper’s quality.

1 Since problem-oriented, model-based work seems to be the main type of contribution at System Dynamics conferences, papers written about completed research are expected to describe a series of topics (derived from Forrester’s view on what can be achieved with an appropriate simulation model; see Forrester. 2007 System dynamics – the next 50 years, *System Dynamics Review* 23(2/3) 359–370) and other review guidelines of other conferences.

- *Introduction*
 - *Is there a clear research question, with a solid motivation behind it?*
 - *Is the research question interesting?*
 - *After reading the introduction, did you find yourself motivated to read further?*
- *Theory*
 - *Does the submission contain a well-developed and articulated conceptual or theoretical framework?*
 - *Are the core concepts of the submission clearly defined?*
 - *Is the logic behind the dynamic hypothesis persuasive?*
 - *Is extant literature appropriately reflected in the submission?*
 - *Does the dynamic hypothesis or propositions logically flow from the theory?*
- *Model (for model-based papers)*
 - *Is the causal structure clearly presented which underlies the addressed problem?*
 - *Does the paper show how this problem is generated by the structure?*
 - *Is a policy discussed which leads to a relevant change in the problematic behavior?*
 - *Is validation discussed to a sufficient degree (following standard texts on validation)?*
 - *Are relevant insights presented that have emerged from modeling?*
- *Method (for empirical papers)*
 - *Are the sample and variables appropriate for the hypotheses?*
 - *Is the data collection method consistent with the analytical technique(s) applied?*
 - *Does the study have internal and external validity (following standard texts on validation)?*
 - *Are the analytical techniques appropriate for the theory and research questions and were they applied appropriately?*
- *Results (for empirical papers)*
 - *Are the results reported in an understandable way?*
 - *Are there alternative explanations for the results, and if so, are these adequately controlled for in the analyses?*
- *Contribution*
 - *Does the submission make a value-added contribution to existing research?*
 - *Does the submission stimulate thought or debate?*
 - *Do the authors discuss the implications of the work for the scientific and practice community?*

2 Papers about work in progress are expected to describe the topics that have been elaborated so far (according to the above list) and to make explicit up to which point the work can be considered as validated.

Last year's report had an exemplary web-form for this in its supplementary material.

Minimum requirements for papers dealing with unfinished work

It has also been suggested that the conference should allow for work-in-progress to be presented, in order to be inclusive and because for a considerable share of participants, the necessary funding depends on having an accepted paper. However, it has also been suggested that such papers should satisfy some minimum requirements.

The meeting did not produce a candidate set of requirements, but from the citation of last year's report, it can be seen that such papers should satisfy at least the points "introduction" and "theory", and give clear indications about the "method".

Communicating recommendations to authors

The current website gives few instructions to authors, mainly formatting guidelines. It may be helpful to indicate what is expected from papers submitted to our conference. Thus, the same topics used to review can be suggested to authors:

1. Model-based work written about completed research is expected to satisfy the following criteria:

- Introduction
 - There should be a clear and relevant research question, with a solid motivation behind it
 - The introduction should motivate to read further

- Theory
 - There should be a well-developed and articulated conceptual or theoretical framework
 - The core concepts of the submission should be clearly stated and defined
 - The logic behind the dynamic hypothesis should be persuasive
 - The extant literature should be appropriately reflected
 - The dynamic hypothesis or propositions should logically flow from the theory
- Model (for model-based papers)
 - The causal structure which underlies the addressed problem should be clearly presented
 - The paper should show how this problem is generated by the structure
 - A policy which leads to a relevant change in the problematic behavior should be discussed
 - Validation should be discussed to a sufficient degree (following standard texts on validation)
 - Relevant insights that have emerged from modeling should be presented
 - If possible, the model should be made available
- Method (for empirical papers)
 - The sample and variables should be appropriate for the hypotheses
 - The data collection method should be consistent with the analytical technique(s) applied
 - Information concerning internal and external validity (following standard texts on validation) should be included
 - The analytical techniques applied should be appropriate for the theory and research questions
- Methodological contributions

- The contribution (method; technique; algorithm) should be clearly described
 - An illustrative example should be described
 - Developed tools should be introduced
- Results (for empirical papers)
 - The results should be reported in an understandable way
 - If there are alternative explanations for the results, these should be adequately controlled for in the analyses
- Results (for methodological papers)
 - The advantages of the new method, technique or algorithm should be reported in an understandable way
 - If there are shortcomings, they should be clearly stated
- Contribution
 - The submission should make a value-added contribution to existing research
 - The submission should stimulate thought or debate
 - The submission should discuss the implications of the work for the scientific and practice community

2. Papers about model-based work in progress are expected to describe the topics that have been elaborated so far (according to the above list) and to make explicit up to which point the work can be considered as validated.

16th August 2010, Schaffernicht and Groesser