

PERSPECTIVES IN CEM

Anonymous Peer Review. Time to move on?

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In the last couple of *Perspectives* we have been discussing what is ‘good enough’ when it comes to modelling and simulations and how do we know that we have achieved this. This is a topic we will be revisiting in coming issues. This time I want to ask the question ‘would open peer reviewing be better for the community than anonymous peer reviewing?’ In fact do we need peer reviewing anyway?

This is a story I heard a few years ago. It might be a relevant metaphor.

A group of chimps were placed in an enclosure. There was a banana hanging from the ceiling and a table in the enclosure. Eventually, one of the chimps pulled the table over to where the banana was and pulled the banana down. As it was doing this, all the chimps were sprayed with a high pressure water jet. Whenever any of the chimps tried to remove the banana, the same thing happened. Eventually, none of the chimps took any notice of the banana. Then, half the chimps were replaced by a new batch. Some of the new ones went to get the banana but were stopped by those that anticipated the punishment. Eventually, all the chimps avoided the banana. Then the half that was in the enclosure from the start was replaced by new chimps. When they tried to get the banana, they were pulled back by the chimps that had never experienced the water spray but had been stopped by the original chimps. One of the new chimps asked why it shouldn’t have the banana and was told by another “that’s the way we always do things round here”.

Why do we undertake anonymous peer reviewing, other than that’s the way it has always been done? A cursory tour of the Web shows that this is a debate that is ongoing in many other forums. I don’t want to rehearse any of those arguments in particular but offer some of my thoughts and invite your opinions for a future *Perspectives*. Here are some points that may help to seed the debate.

1. ***Anonymity allows referees to say what they really think about a paper. Promoting objectivity.***
 - a. When I was a young academic, I would have felt very naked in being very critical about the papers of my ‘elders and betters’. Perhaps, in the future, they would be in a position to referee my papers or grant applications, or perhaps they would be interviewing me for a job sometime in the future. I am sure this is a common sentiment for most young academics. Perhaps this supports keeping the system anonymous.
 - b. Anonymity does leave the process open to bias and subjectivity. I am sure most of us have been at the receiving end of a “...the authors should consider the seminal work in this area of Professor Gartwobbler” type review. Perhaps it would be more objective if Professor Gartwobbler said “I think I have previously dealt with this problem, please look at this reference...”. This could also help to avoid ‘political’ revisions and ‘referee spotting’ resulting in the natural response of “Ah! This must be Professor Gartwobbler, so (s)he will be happier if I reference their papers.” Perhaps this supports an open system of reviewing.
2. ***If you are not prepared to put your name to a comment, should you really make it? Promoting ethical reviewing.***
 - a. An open process may encourage critical debate: encouraging links that may not, otherwise, be made; raising questions that had not been previously considered, and probing a topic further. Perhaps this supports an open system of reviewing.
 - b. An open process could encourage the developments of factions, tribalism and open warfare in research beyond what currently exists. Perhaps this supports keeping the process anonymous.

3. ***Misunderstandings are human and often resolved through dialogue. Promoting the communication of science.***

- a. Many of us have been in the position where we feel that a referee has missed the point. This could be because the descriptions in the paper are actually poor, there is real ambiguity in the paper, aspects of the paper are actually wrong, the reviewer wants to make a point which is not entirely consistent with the subject of the paper, the reviewer wants their opinion expressed through the paper being refereed or the reviewer is actually wrong. Being able to set up a direct dialogue could resolve some of these issues and be mutually beneficial. Perhaps this supports an open system of reviewing.
- b. The current editorial process actually allows these discussions to take place through the editor and these are mediated and recorded. The iterations of the revisions make take months but, with the editor, there is someone there to prevent discussions becoming full blown arguments. Perhaps this supports the anonymous system of reviewing.

If we were to move to an open system of reviewing, with referees effectively signing their comments, the role of the editor may change to something that is more like a moderator rather than a decision maker.

One big question is whether we could do away with reviewing entirely. After all, it is expensive financially and in the time of the editors and referees. Perhaps we could allow anything to be published and make peer commentary more acceptable. This is, very much, a blog-type approach. Personally, I don't think so. It would be too easy to publish ill thought out, wrong or possibly libellous material. Peer review, in whatever form encourages, at least, some basic quality control.

Anonymous peer review is ingrained in the way we publish research material. It is an accepted pillar of the research community. Is it time to change the architecture of this pillar to encourage open reviewing rather than anonymous reviewing?

If you have read through this article and nodded sagely saying "he's got a point" or shaken your head saying "what rubbish", send me your thoughts, opinions and favourite references on this subject and I will collate them for a future *Perspective*.