Improving the efficiency of manuscript selection

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Science relies strongly on the publication of articles in scientific journals and it is clear that decisions concerning which papers merit publishing should be based on a process of manuscript selection that is as objective, repeatable, reliable and transparent as possible. Manuscript selection, however, has many practical downfalls. There is considerable controversy concerning issues such as whether or not the process should be blind both for authors and reviewers in order to prevent biased selection in relation to country of origin (Budden et al., 2008), sex (Young et al. 2008) or research topic (Michaels, 2008). Another critical point is the imbalance between supply and demand of manuscripts as this likely leads to biased selection (Young et al., 2008). Also important is the issue that following rejection, the editor and reviewers of the new journal selected for wouldbe publication by the authors start the process from scratch, as if the opus had not already passed through a thorough process of peer review. Such rules of play seem to promote the role of sheer luck in the process of manuscript selection. Authors of a rejected paper have the growing hope of "greater luck" the next time regarding reviewer assignment as they believe in the quality of their work. For the correct advancement of science I consider there should be a common global database available to editors, where each manuscript which has been subjected to an SCI journal is recorded. It should include a copy of the editor's and reviewers' comments, and also the authors' replies. Hochberg et al. (2009) recently expressed their concern regarding the fact that authors usually think that manuscript submittal is a stochastic process, whereas in fact reviewers usually focus on the same set of criticisms. To solve this problem they suggest a) having colleagues reviewing a manuscript before submission, and b) requiring authors to state in a cover letter that reviewer comments from the previous submittal were taken into account. Option b is suggested as an alternative to obliging authors to declare whether or not their submission was previously rejected by another journal, because they think this could prejudice the evaluation of the new submission. However, I believe that the system I propose here would prevent prejudiced evaluations because authors would have the opportunity to upload the response to reviewer's comments so that second-round reviewers would have the chance to see both the problems previously detected in the manuscript and the defence offered by authors. Although not a perfect system its benefits would probably outweigh the caveats. Such a system would improve the quality of the final paper and facilitate the work load for second-round reviewers and editors. Indeed, some journals already seem to be implementing a solution which is fairly similar to our proposal, asking authors of rejected papers for permission to forward reviewer reports to the new journal chosen by the authors to submit the revised work (see Hochberg et al., 2009). Proposals to reward or punish reviewers depending on their rapidity to elaborate their reports (Hauser & Fehr, 2007) does not foster accumulated quality improvement. Science quality would undoubtedly gain from making previous information concerning a manuscript's review available to new reviewers, as in a Bayesian framework of inference (Martin et al., 2005) because starting a new each time, as if previous information did not exist, is simply not an efficient way to proceed in science.

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