Problems with Peer Review

Peer reviewed publications have long been seen as the gold standard in assessing scholarly publications. Researchers are encouraged to aim for publication in peer reviewed journals or presentations at peer reviewed conferences in order to further their careers but is the peer review process really the best system to use? The following video outlines some of the main problems with the traditional peer review model.

Inconsistency
As peer review relies heavily on individual judgement it can be unreliable and inconsistent. Typically an editor will assign at least two reviewers to look at a submission. They will then assess it according to both the quality of the work and the strength of the underlying research to decide whether to accept it, reject it or request some revisions. A third reviewer may be asked to look at the submission if the first two can’t agree. When a decision has been reached this is passed on to the editor who will have the final say in what happens to the submission.

These individual peer reviewers will bring their own preconceptions and biases to their reviews, no matter how well they have been trained. This means that it may take some time for them to agree or they may come up with different verdicts. This inconsistency extends beyond individual publications and so what is rejected at one could be published by another which calls the integrity of published research into question.

Delay
Sending the work out to reviewers and potentially involving others adds extra time to an already time consuming process. Going through formal peer review means that the time from submission to publication can be long and this delays publication of the final work. This is a huge concern in disciplines where research is very fast moving and researchers need to get their ideas out to the community quickly. These delays also result in a cost in both time and money to the reviewers and the publishers. Works are rarely accepted with no revisions meaning that they may have to go through several rounds of peer review. The original reviewers may not have time to reread a submission and so a new reviewer who is unfamiliar with previous comments and the work will have to be found. This results in increased financial costs for the editor and publisher who will have to spend time coordinating the reviews.

Potential for subversion
Although it is rare, the traditional peer review model is open to tampering. Both reviewers and editors have a lot of power over what is published and can use these decisions to block publications. Peer review is usually carried out anonymously which means that reviewers can conceal any potential conflict of interest and authors have little comeback if they suspect a problem. Although deliberate blocking of research is rare there may be more subtle cases where the bias of the individual reviewer can slip through unchecked. Reviewers often receive little or no training when
doing reviews so may be unsure of the best methods which can perpetuate the problem.

**Lack of peer reviewers**
It can be hard to actually get people to conduct peer review. The pool of experts in any field may be small which means that there are a limited number of people to contact to begin with. Added to this is the fact that peer review is carried out voluntarily. The incentive for both academics and researchers is a way to give back to the discipline and get some experience for their CV but it can also be a burden. People often underestimate the amount of work needed to carry out a thorough review and this can put extra pressure on already busy researchers. This lack of reviewers also has wider implications. Those who carry out peer review are doing so for free on top of their day jobs at academic institutions. Without them peer reviewed research would not be published. These same academic institutions are then expected to pay for access to materials that their research community have both written and reviewed for free. Is this really a fair and sustainable system?

**Is the future open?**
None of these problems have a quick and easy solution as this would require a major change in the academic reward system. However in the 21st century there have been calls to move towards a more transparent and collaborative model of peer review to help counteract some of these problems.

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