Will Publons Popularize the Scientific Peer-Review Process?

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Lately, I have been having trouble sleeping. There is something on my mind, something that I have been putting off for weeks and is long overdue. It is not what you might think. I have not missed a grant deadline, forgotten an important experiment, or put off preparing my final exam questions. I am ashamed to admit it, but I have been neglecting my peer-review duties. Yes, I am one of those culpable academics who click on the "I agree to review this manuscript" link and then need constant pestering, reminders, and extensions from journal editors to get the job done. Not only am I falling behind on my commitments as a reviewer, I am reviewing far too few papers given my annual publication output. But I am also not the only one failing to follow through with peer review.

Many of my colleagues struggle with these same problems. They are overextending themselves, and the first things they drop are their peer-review obligations. Making matters worse is the ever-growing number of online academic journals and the escalating rate of publication. Indeed, the global scientific output is doubling about every 9 years (Bornmann and Mutz 2015), leading to an increasingly competitive publishing environment, more strain on editors and reviewers, and greater expectations from authors—"You promised a first decision in 30 days or less." One journal responded to these pressures by creating a two-tier publishing system: Earlier this year, papers submitted to *Scientific Reports*, which is owned by the Nature Publishing Group, could be fast-tracked through peer review if authors made an additional payment beyond the standard fee (Cressey 2015). After harsh criticism from the scientific community, the journal eventually removed this option.

Sometimes, those who fall short of their peer-review responsibilities are the first to complain when it is their papers being held up in the queue. Admittedly, I have been waiting for more than 6 months to get the first round of reviews for one of my own manuscripts and have sent multiple e-mails to the journal and associate editor trying to expedite the review process. A former collaborator of mine was ferocious with editors when his papers sat in limbo for too long. But he once confided to me that he rarely had time to review papers for journals, and when possible he had the editors pass the manuscripts on to his students or postdocs so that they could gain review experience.

Another factor impeding peer review is that, apart from a sense of scientific and moral duty, there are relatively few rewards for refereeing a paper—although when the papers are well written and the science is well done, it is an excellent way to stay abreast of cutting-edge research. Moreover, a high-quality review can take hours, even days, to perform, and in most cases, the referees remain anonymous and, thus, get little direct credit from their colleagues or employers for all of that hard work, with the exception of adding another notch to the "external service" sections of their curricula vitae.

If more scientists are in fact shirking their peer-review responsibilities, what can be done to rectify the situation? One option is to give researchers, academic institutes, and the scientific community as whole greater incentives for reviewing papers. This is exactly what the creators of Publons have in mind. Founded in 2013, Publons is a free online social media service that lets users record, share, and showcase their peer-review activities. The service is based on the hypothesis that "when reviewers get official recognition for their work, they are more willing to accept review requests, more willing to prioritize time to do the review quicker, and more likely to do a comprehensive review" (*www.publons. com*).

Like other academic social media platforms, such as ResearchGate, Publons provides its members with various scholarly metrics and an overall score, which they can use to compare themselves with other members and add to promotion or grant applications. But unlike ResearchGate, Publons does not reward its users for the number and impact of published papers; instead, it ranks users (and institutions) on the basis of the number of papers they have peer reviewed. Adding both recent and past reviews to a Publons profile is straightforward and includes a formal verification step in which users forward their review receipts—that is, the "thank you for reviewing" emails—to Publons. Once a review is added, only the journal and the month of the review are shown, and all other identifying information remains hidden from the public, unless the user chooses to share it. Members can also endorse the posts of other members—the more endorsements you garner, the greater your overall score. With more than 8000 "Publon" points, Jonas Ranstam, a medical statistician from Sweden, is currently the highest-ranked peer reviewer at Publons, and Harvard tops the website's university leaderboard.

Publons is quickly gaining in popularity. As of 20 November 2015, it boasts about 50,000 members who together have uploaded nearly 250,000 reviews from 14,500 different journals. *Nature* recently highlighted the company in a news article (Van Noorden 2014), and a number of popular academic publishers, including Wiley, Cambridge University Press, and the Royal Society, have partnered with and integrated the Publons platform into some of their journals, allowing Publons users to receive automatic recognition for peer review. Publons has also formed alliances with the scientific social media services ORCID and ImpactStory, which means that Publons-verified reviews can be automatically displayed alongside other online research profiles.

About a year ago, while working in my university office, I had an overseas phone call from one of the developers of Publons. He was doing market research and asked me a series of questions about my thoughts on peer review and if I would be interested in a service like Publons. I told him that the initiative sounded exciting but that I was already bogged down with too many online accounts as it was and reluctant to sign up for another one. In the end, he did a great job of describing Publons, emphasizing how

it would allow me to easily keep track of my peer-review contributions and openly share them with the world. I explained to him that this is exactly why I will not be rushing out to get a Publons account—I am embarrassed to broadcast to everyone that I have published more papers than I have peer reviewed. My sense is that there are a lot of scientists like me: early-career researchers who have not yet had much opportunity to review papers, particularly from high-profile journals, and therefore do not have much to boast about online. I also know some well-established scientists, with hundreds of papers to their name, who if they opened a Publons account would have surprisingly unimpressive profiles. Perhaps, these are good arguments for why we need a service such as Publons.

Whether or not researchers choose to join Publons (or similar online platforms, which are bound to pop up), we should all contribute to and take pride in the peer-review process, trying our best to review at least two papers for every one we publish. Publons might be a good start for motivating inactive scientists to start reviewing more papers, but maintaining and updating the account could also become another chore on the academic to-do list and thus be

counterproductive—although automatic integration of Publons with journals will certainly help prevent this from happening. My biggest fear is that Publons is just another bean-counting device in a research environment that has too many beanbags to begin with, from impact factors to altmetrics to *h*-indices—and now peer-review merit points, as they are called on the Publons website. What are you waiting for? Sign up now to see how much better or worse you are at peer review than the colleague next to you.

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