

STICKY WICKET

The worst II – eight days a week

Mole



Original artwork by Pete Jeffs - www.peterjeffsart.com

What happened to the sun? Yesterday was a balmy, autumn day, and today I'm freezing cold. Every day, when I'm home (which is sometimes), I do all of my work for the day sitting outside, where I am far from distractions (I am probably a little A.D.D., which does not stand for Always Drawing Doodles, but might as well). I can write, and read, and get done everything I need to do today (which is usually writing and reading, and sometimes writing to you). On weekdays, I then go into the lab, and spend the rest of my day talking to Molets or having meetings (which are often time-wasting information dumps, as in 'today we want to bring everyone up to speed on our efforts to improve the cafeteria,' but I can't avoid them). Recently, I was asked by an administrator to list my job responsibilities in order of priority. I told her that my job, as I see it, is to "discover stuff and tell people what we found." Anything I do that doesn't fall into that category is a distraction. So here I am, freezing outside. It's okay, I'm wearing a warm hat.

But that isn't what I wanted to talk about ('really, Mole?' Yes, really. I guess I'm A.D.D. – Always Doing Detours). I wanted to continue our discussion about papers, about how we review them, and how the trend to demand answers to every question we might want to ask delays getting exciting new information out to the community. There must be a better way.

I know I'm not the only one thinking about this. Before we go into my own thoughts, it might be instructive to see what people have been trying to do to deal with the issues. One approach is to post 'preprints', manuscripts that have been written but not yet peer reviewed. After all, the thinking goes, don't we scientists have the ability to evaluate whether or not a body of work has validity? And if we post our work, we can at least show people what we have been working on, should someone else publish before we do. Of course, there is merit in such thinking. But I don't think that this can replace publishing. For one thing, there are just too many papers to read. One preprint server (which I will call Bio-Prescription-Four, since that is how I read it when I first saw it) 'published' over two hundred thousand preprints in the past three years. If I query a search term for one of the areas my lab researches, I get over twenty-three thousand 'hits'. Hey, I read a lot, but if I only look at each of these for ten seconds, for eight hours a day, it will take me eight days to glance at them, and that doesn't count download time (or actual reading). I don't have eight days a week. I'm not saying that Bio-Prescription-Four isn't useful, for many reasons, but I need a bit more guidance if I am going to use this as my only way to know what is going on.

Another approach, which I think is interesting, has apparently been adopted by a published journal, which I guess is 'Electronic Life' but not about artificial intelligence. We submit a paper there, and it is reviewed if it in any way resembles an actual, scientific paper (perhaps there is an editorial decision here; I suspect so, but it is difficult to tell). Authors decide if they want to do revisions based on the reviews. The website says this: the journal will "no longer make accept/reject decisions after peer review. Instead, every preprint sent for peer review will be published on the website as a 'Reviewed Preprint' that includes an assessment, public reviews, and a response from the authors (if available)." This does sound like they are trying to fix things. After all, if I (as an author) disagree with a review, I can rebut it, make my case, and effectively get my findings out to the scientific community, and readers can make up their own minds. Okay, it will make reading a paper a more challenging effort, but the trade-offs seem worth it, right? Maybe. But in discussing this with my friend, Professor Civet, her perspective was "Expletive [she didn't say 'expletive'], I don't have time for that." In her opinion, and I don't disagree, the editors have removed the role of editors from the equation (you may feel that this is a good thing, but one could argue that good editors do set a standard for a journal, without which it becomes much more difficult to decide on what to read; we don't have eight days a week).

"But Mole," you say (I'm listening—I always listen to you). "I do literature searches for what I want to read in my field, and that narrows things down to what I *need* to read." Yes, I do that, too. But here's the thing: any success I have had has come because I read a lot of things that are outside my field; I peruse journals that are likely to contain interesting papers, and I read the ones that catch my eye – not just the ones that I feel that I *need* to read, but many that I just *want* to read. I don't have the expertise to know if these are important or even exciting, but the editors have indicated that they have found it so, and therefore I have a look. Without that, I am afloat in an ocean, I would have a chart, not a map, but you know what I mean).

I'm not saying that these aren't ideas worth more exploration, and you probably have some great ideas as well. But I'm writing this, so I have an idea to share, and I'd love to hear your thoughts. It won't solve all the problems, but maybe it will solve *one* problem, and it's this: How do we get fundamentally novel findings which could (potentially) change how we think, out to the scientific community without running the gauntlet of answering every question that a reviewer (or for that matter, a reader) might have? You know, how do we not fall into the rabbit hole of 'well, how does *that* work?' and instead, perhaps let others answer this question, and the next ('okay then, how does *that* work?'). You know, make *progress* as a community. It's just a little idea.

I would like to propose a new journal, which I have tentatively called 'One'. Here's the idea. When you submit a paper to 'One' it has only one figure. The figure can have multiple panels, but no more than what would fit into what we consider a figure, and the whole paper (including the figure) fits on what would be one printed page. Any 'supplemental figures' must be simple support information (such as showing that, say, a knock-out is a knockout), not new information. The paper you submit describes a striking, novel, potentially important, and certainly exciting finding. But just one. Hence the (tentative) name.

To decide if your paper would be considered for 'One', we would recruit a large number of academic editors, all experts in their respective field, and assign them the task of deciding if the paper submitted to 'One' is sufficiently interesting to be considered (from their perspective as experts). They send it for review, but instruct the reviewer that they only evaluate the data provided – the data either supports the exciting conclusion or it doesn't. They don't get to ask 'how does *that* work?' or 'what would happen if you did it *this* way' (the reviewer can also state why they might not consider the finding particularly exciting, should that be the case). If the answer is yes, the data support this interesting conclusion, then 'One' will publish it, and the field will take the finding into consideration, and hopefully work on it some more.

Oh, I know, there are lots of problems with 'One'. Here are a few. First, the finding could be wrong. But that happens all the time – go back to an issue of your favorite journal, say 20 years ago, and I bet you'll find things that turned out not to be particularly useful. Second, who decides if something is 'interesting'? Yes, we will rely on editors who hopefully know their respective fields, but they can get it wrong (if your one figure paper is rejected by 'One', you might have to carry on and write a 'conventional' paper in time). But I reckon that if it is interesting to several editors (and we'll ask more than one to weigh in), then maybe it is worth a look? Hey, it's only a one-figure paper. Third, it could be that by publishing your onefigure paper, others who have worked hard on the topic will be scooped (you think that doesn't happen anyway?). But maybe (and it's a big 'maybe') you'll hasten to communicate a truly exciting finding you've made, and get the credit for finding it, and be pleasantly surprised that your 'competitor' has also submitted their one figure paper to 'One' as well ('maybe' you will coordinate this with them – this wouldn't necessarily be a bad thing, no?). Fourth, not every finding, even very exciting ones, can be described in a onefigure page. No problem, there are journals in which to publish such findings. Save 'One' for something special. You'll know it when you see it, and most likely, 'One' and its readers will as well.

Once upon a time, journals with nice, soft, *paper* pages did this one-figure thing. Someone would make a single discovery (say, the structure of DNA, or the existence of a genetic code) and it would be published as a one-page paper. The first paper I ever published in such a journal had one figure, no supplemental figures, and only 800 words (the journal gave me the option of cutting my paper to 800 words or publishing elsewhere; I cut the paper to 800 words). And people noticed and read it. It's been done before.

I do know this: I would *love* to read papers in 'One', if it were really what it's meant to be. And it won't take me eight days a week to read every single one, regardless of whether it is in my field. Should we give it a try?