Is Science a one-way street?

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This might sound strange at first, but there are people who publish a scientific paper looking forward to being corrected. My senior colleagues and I are amongst them.

In our research field, a subfield in predictive modelling, there had been publications saying how not to select and assess predictive models, but none which would specify in exact details how to do it. In our practical work we had come up with algorithms for several scenarios. However, we weren't sure if there existed a better solution.

So, six years ago we decided to publish a paper and to share our knowledge with the wider scientific community hoping that someone would correct us. Bear in mind that our goal is to select the best predictive models in practice, and being corrected would mean that we would learn something new and do our job even better in the future.

Unfortunately, it hasn't happened. Zero corrections! I emailed and asked numerous well-known figures in the predictive modelling research community to check our algorithms. A French mathematician, an expert in the field whom I contacted via email, made the good point that we had explained a certain procedure in one way, while it may be applied in another way (check References for more details). There were some positive comments on one blog and various tweeter accounts, but apart from that – nothing! It is as if we hadn't published the paper.

Over the years the number of internet accesses has started to grow (now over 111 000) as well as the modest number of citations (now over 280). It is not as if nobody has read the paper, or there hasn't been any interest in the subject.

I have never indulged myself in the thought that our published algorithms are perfect, but I do wonder about Science today. Is it all one-way communication? I don't know where we made a mistake? What should have we done to motivate others to comment and constructively criticise us.

Should we have, for example, ended our paper with: *"All comments and especially corrections will be warmly welcomed."*?

References

1. My senior colleagues:

dr Ljubomir Buturovic https://www.linkedin.com/in/ljubomir-buturovic-798156

prof David E Leahy https://uk.linkedin.com/in/davidleahy

dr Simon Thomas https://uk.linkedin.com/in/simon-thomas-86965614

2. Our paper

https://jcheminf.biomedcentral.com/articles/10.1186/1758-2946-6-10

3. Dr Sylvain Arlot's only comment in a private communication to me was that we didn't mention the difference between the pooled and averaged cross-validation. All our algorithms presume pooled CV.

4. Max Kuhn mentioned our paper in his blog

http://appliedpredictivemodeling.com/blog/2014/4/10/cross-validation-pitfalls-when-selecting-and-assessing-regression-and-classification-models

5. Altmetric captures Twitter activity

https://www.altmetric.com/details/2281275