



## Taking back control of scientific publishing

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The quality control system of the scientific community and the accessibility of the scientific literature can be improved a lot. I propose to do so with “grassroots scientific journals”, which make open assessments of the literature of a scientific community.

A grassroots journal collects, assess, categorises and ranks all articles relevant for a specific topic/community. It thus brings together articles that are now scattered over many titles and it thus helps scientists to better access the scientific literature. It thus includes articles of all quality levels.

It differs from a traditional journal in that it does not publish the articles itself. Authors thus do not have to submit their manuscripts to the journal. Thus, the problem is avoided that it is hard to build up a reputation for a new journal.

It differs from an ArXiv overlay journal, which only reviews manuscripts published in repositories, in that it reviews the entire scientific literature. This creates a more useful overview over the literature.

It differs from a collection by the greater focus on the assessment of the articles and by building an organisation to ensure that assessments are made for all articles.

The reviewers write a summary, explain the strengths and the weaknesses of the study, how it fits in the scientific literature and a numerical assessment of the importance of the article. Everyone is invited to write comments and web annotations. Also anonymous comments and assessments are allowed, but the editor of the article will screen them before publishing them (pre-moderation) to ensure the discussion stays scientific.

The more accepted this new quality assurance method becomes, the less important it will be where a study has been published. This will hopefully stimulate a healthy competition between journals and better services for the scientific community as well as a faster transition to Open Access journals. More competition could reduce prices by an order of magnitude and thus improve the accessibility of the literature. Grassroots journals would also make it easier to publish non-traditional formats, for example interactive lab notebooks and datasets.

The editors have a strong position due to the need to moderate the discussion. To make it harder to abuse this power the open reviews will be open data objects and follow the FAIR principles (Findable, Accessible, Interoperable, and Re-usable). This makes it easy to start a new journal based on an existing one in case (part of) the community is dissatisfied with the current editors.

To demonstrate the value of this new assessment system we have started a grassroots journal for our community working on the homogenisation of climate station data.

[homogenisation.wordpress.com](http://homogenisation.wordpress.com)