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"On the future of journal publications in hydrology" by G. Blöschl et al.

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Following the joint editorial and the on-going discussion, here are some thoughts on the handling of the "avalanche" (Erwin Zehe) of hydrological articles and the review process.

1) Increasing number of articles published in water related sciences

As already discussed in the other comments, the huge quantity of articles now available poses the question of who can read all this publications (see Axel Bronstert's comment) - especially, if you have to become acquainted with a new topic (e.g. like a PhD student). Manuscripts may not be read in detail any more but if other scien-

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tists merely restrict their reading to abstracts and conclusions or just scan articles, why should one keep on writing entire papers? Here Axel's proposal of limiting the number of publications would be helpful to restrict some of the uncontrolled growth.

Yet, I also agree with Erwin Zehe's notion that not only fundamental discoveries (by the way, is the extension of an established method by one detail fundamental? When do you consider something to be new?) but also every sound application of a method to a new place have some scientific merits, even if the study only confirms well-known things.

Therefore, I think that one of the major issues that hydrological journals face is the organization of the articles. One should focus on a) providing ways to find articles more easily and b) the condensation of existing knowledge.

(a) Ordering of articles

In contrast to ordering articles according to the issue they were published in (an information that is of limited interest in the digital world), I suggest to order them in a system of categories and sub-categories (e.g. evapotranspiration/evaporation from open water bodies). This should be easily done, as during submission of articles one normally has to assign one's article to some categories.

Each sub-category should be classified in review articles, highlighted articles (as suggested by reviewers or editors, maybe including some article metrics like numbers of viewers), studies proposing new methods and case studies. Finally, a world map could indicate the locations where the different studies were conducted (cf. Blöschl et. al's joint editorial). Preferably, such an overview would not be restricted to one particular journal.

(b) Condensation of existing knowledge

The increasing amount of articles leads to an increasing demand of review articles. Why not invite distinguished specialists to write reviews? And allow reviews to be

updated every one or two years (analogous to publishing different editions of one book) - so the information would be kept up-to-date without having to reformulate the same things again and again.

Also, studies comparing different methods are missing. Often, new methods are introduced without entirely proofing their benefit towards existing approaches (e.g. just one case study is done or the new method is not compared to all existing methods). Comparisons of all available methods should be done and the benchmark data sets and method implementations should be provided to enable an easy comparison of methods that are proposed after the comparison study was done. Step-by-step these data sets could be extended to incorporate different regions and conditions.

2) The review process

A completely open review process is maybe questionable (But why do you need anonymity if your critic is constructive?) but at least journals should enable the interaction between reviewers and authors since sometimes some critic is just not clear (cf. Hoshin Gupta's comment) or reviewers refer to some articles without giving proper references. So, handling the review process in a forum based interface (as it is done in HESS) would have clear advantages compared to the editor-driven email based system.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 11, 4209, 2014.

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