

IEEE TRANSACTION ON INFORMATION THEORY
Some points about the editorial policy of the Society, to be discussed at the BoG meeting, Nice, June 2007

1. Open supplementary reviewing

Fact: Due to the large number of peer-reviewed publications, it is becoming increasingly difficult to find competent and responsive reviewers in order to guarantee the quality and the timeliness of the peer-review procedure.

Action proposed (based on a suggestion by Prakash Narayan): If a paper is sent to arXiv, with the explicit indication “Submitted to the IEEE Transactions on Information Theory,” then its readers are allowed to send the EiC comments about it. After verifying that these are not frivolous or obviously biased, the EiC forwards them to the Editor in charge of the paper to supplement regular peer reviews.

Upsides: A bigger involvement of our readership in the reviewing process (eager graduate students, unknown to the Editor, could provide valuable insight, etc.). In the case of flawed results, these can be detected more reliably and in a shorter time.

Downsides: Care should be exercised by the EiC, who filters the unsolicited reviews, to prevent authors to game this system by having their buddies send in favorable comments. Similarly, competitors could try to hold up publication of papers by sending claims that need to be investigated to be resolved. Inputs, while potentially valuable, have to be given less weight, and could in fact have a negative influence on the process unless they are carefully controlled.

2. IEEE performance metrics (reduce processing time)

Fact: IEEE quality metrics for journals are: *50% submissions to receive first decisions within 90 days; 80% papers in each journal to have publication time (“sub to pub”) less than 1 year.*

Action proposed: Establish automatic, increasingly nagging frequent reminders to AEs starting after 90 days from paper assignment.

3. Letters submission (some points here benefited from discussions with Vince Poor, Bixio Rimoldi, and Dave Neuhoff)

Fact: Given the equivalence in size between conference papers and Transactions letters, are authors allowed to republish in the Transactions manuscripts that already appear in Conference Proceedings? Our current editorial rules (Cover 3) state that

“publication in conference proceedings of an abstract, summary, or other abbreviated, preliminary form of the material shall not preclude publication in this journal when notice of such prior or concurrent publication is given at the time of the submission. The novelty will usually lie in original results, methods, observations, concepts, or applications, but may also reside in synthesis of, or new insights into, previously published research.”

IEEE rules, while recognizing explicitly “evolutionary publishing,” do forbid what they call “self plagiarism,” i.e., double submissions not justified by supplemental new results. At least two IEEE Journals have strict rules about the amount of novelty justifying resubmission, and institute an informal policy that *all submissions should have at least 30% new content as compared with its conference versions or previously published versions.*

Action: Make our policy clear and well known. State clear rules about the amount of novelty for a manuscript appeared in the Proceedings or a Conference to be eventually published in the Transactions. For example, say explicitly in the guidelines that republication is allowed only in the presence of “substantial novelty.”

Upsides: (a) Follow more closely IEEE rules. (b) Nowadays all IEEE conference papers can be found in IEEEExplore, and hence no advantage to the reader comes from his finding the same manuscript under two different formats/titles. (c) Wasting editorial processing time and energy to duplicate a manuscript is not the right thing to do.

Downsides: (a) There is a distinction between publication in the Transactions and publication in the ISIT Proceedings. It is not simply a matter of having the material printed and available on IEEEExplore, but rather it is a matter of validation. A paper published in the Transactions has been carefully peer reviewed. Someone reading it knows that it meets certain standards. A paper published in the Proceedings has been more lightly reviewed, and moreover there is no quality control after the first review. So, papers in these two venues, although possibly very similar in appearance, have different meanings to the reader (or, they should anyway). The hallmark of the Transactions is high quality, carefully peer reviewed, papers of significance. (b) Whether a paper that has already appeared in the Proceedings is worthy of such publication is a matter for the judgment of the reviewers and editors of the Transactions, not bureaucratic rule-making. The Transactions work well mainly because we appoint thoughtful people as AEs and let them do their jobs with as few restrictions as possible. (c) If we do not allow the same paper to be published in the Conference Proceedings and in the Transactions then the author will “write strategically,” finding ways to hold back with the conference publication (e.g., remove proofs). It would be better not to have such artificial constraints. The same result can have two outlets: the conference where it is presented verbally and without delay, and the journal where it is presented after the scrutiny and the input from the reviewers.

4. Invited papers

Fact: It has been about 10 years after the publication of an entire issue of the Transactions devoted to tutorial/state-of-the-art papers summarizing the first 50 years of Information Theory. Since then, several exciting new areas have been developed.

Action: Publish a series of invited papers on the areas that were not covered in that issue, or areas where a large body of new results was developed. These could be published, for example, one per issue during 2008. The papers should be written by invited teams exhibiting a maximum of diversity in their approaches to the discipline.

Upsides: Tutorial/state-of-the-art papers are generally welcome by our readers, and will foster the development of the discipline.

Downsides: Invited papers may appear to give persons too much of an imprimatur on a subject. Some journals have discussion papers, in which one person is invited to write an overview-type paper, and others are invited to write short pieces discussing and critiquing that paper. This might be a good model.

5. Starting a magazine

Fact: Other IEEE Societies publish a Magazine, devoted to Society news (like our present Newsletters) and to light tutorial papers (Signal Processing Magazine is an especially good example). These papers are usually well-read and well-referenced.

Action: Transform our Newsletters into a Magazine.

Upsides: Increase the membership and the readership of our Society.

Downsides: A Magazine will put some strain on our finances (at least at the beginning), and require additional bureaucratic structure.

*Ezio Biglieri
Incoming Editor-in-Chief
Barcelona, June 2007*