

## Ethics in Publishing and the Reuse of Previously Published Material

Everybody agrees that in preparing and submitting a manuscript to a journal or a conference, there are ethical rules to follow. But ask five different people what such rules are or should be, and you would almost surely get five different lists! Of course, everybody (statistical data show that unfortunately one should say “almost everybody”!) inside the scientific community agrees that plagiarism is an undisputable ethical violation. Surely plagiarism has several facets that have been provocatively discussed in [2] (see also [1]). Also, in some cases, copying from someone who is regarded as authoritative may be erroneously regarded more like a tribute and a sign of recognition than as something unethical. Thinking of plagiarism as a “sin” is clearly an acquired concept because, from our first years of school, we are taught that copying from our schoolmates is bad. Despite the clearly different affects that all such warnings have on different students, it is still true that each student is aware that copying from a colleague is bad!

Other forms of plagiarism, however, are probably not sufficiently emphasized, and they may still be erroneously regarded as acceptable. And not only to young school students but also to adults! For instance, in every work, in particular in every Ph.D. thesis, there is a good deal of preliminary material that aims at making the reader familiar with the main definitions and results the work relies upon. Copying part of this background material without giving



A trip to Cape of Good Hope during the IFAC WC 2014: (frozen, from left) Lorenzo Marconi, Stefano Stramigioli, Elena Valcher, and Patrizio Colaneri.

proper credit to its sources is not an uncommon habit, and often it is not even perceived as unethical, especially if the material comes from an online source (see a very interesting discussion about this issue in [7]).

But despite all the fanciful justifications one may come up with, it is undeniable that everybody in our scientific community thinks that copying someone else’s manuscript is a serious violation (and if the manuscript that has been plagiarized is our own, the severity of the crime is further magnified!). Other behaviors, however, such as multiple submissions, lack of proper referencing, reuse of previously published material, and impact factor manipulation (also pointed out in [1], [3], and [7]) are clearly perceived in different ways and provoke rather different reactions even in distinguished colleagues.

Everybody who has been in the field long enough to witness the launch of IEEE *Xplore* and other online reposi-

tories of journal and conference proceedings may remember the times (“the good old times,” as someone at this point would add) when the same, practically identical manuscript was submitted both to a conference and a journal. What was a standard practice in the 1990s made sense for a major reason: the conference version of a paper was bound to be inaccessible to the large majority of the scientific community. The only exception was represented by those researchers who not only attended the conference but also dutifully and bravely chose to bring back home quite a few kilograms of conference proceedings to share with colleagues. I still remember when my colleagues from Padova and I were coordinating the “repatriation” of the conference proceedings. Each of us was bringing home a single volume (and we were still talking about 2–3 kg each), while leaving the others in the hotel room (what a waste!). A clear

agreement about which volume was assigned to each of us was fundamental to retrieving the entire conference proceedings once back home.

Today conference proceedings are posted online, starting a few months after the conference has taken place, and available to (almost) everybody. So, does it make sense to have, possibly next to them in the same repository, an identical journal version? IEEE (and other publishers) believes it does not, as very well clarified in [3] and in the IEEE Publication Services and Operations Manual [5], and I agree with this perspective.

Some motivations supporting this view have been pointed out also in [1], [3], and [5]. I would like to emphasize what I regard as the most meaningful ones. First of all, there may be a legal problem. Indeed, the reuse of previously published material may raise

copyright issues, in case an unaware publisher ends up publishing material whose copyright has been previously released to a different publisher.

Second, we are all aware of how burdened the entire scientific community is by the review process of scientific journals. As I pointed out in my column in the previous issue [6], this is an important service we owe to our community: we submit papers that require the evaluation of our peers, and we must be willing to provide the same service. However, this must be a meaningful and high-profile job and playing "spot the differences" between two scientific articles surely does not fall into this category. But even when the differences are a little more meaningful, one may reasonably wonder whether investing the time and effort of two groups of reviewers for evaluat-

ing two very similar works is a good investment or a waste of time for the entire community.

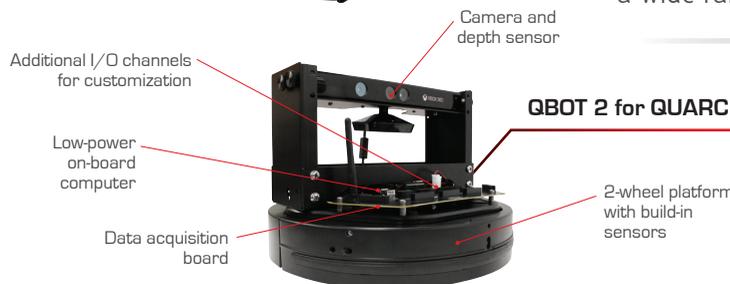
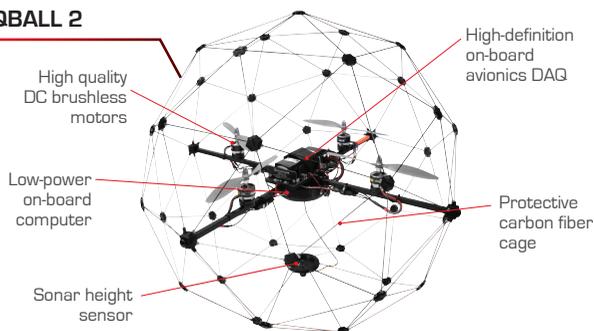
Third, as authors, we always struggle to find and read all the references that may be relevant to our research. The number of journals and conference proceedings that we currently have to search through to be sure that nothing important is missed has become amazingly high and with which it is almost impossible to cope. Not to mention preprints and draft versions available on personal Web pages and online archives. If the number of references we have to look into is artificially boosted due to bad practices, consisting of revising and proposing again almost the same content, after minor or cosmetic changes, we are again wasting our time.

And yet, we are all aware that in our curricula vitae (CVs) the number of



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The ExCom meeting in London, May 2014: dinner and pub time!

publications matters. Moreover, journal publications in general have a much higher impact on our CVs and the evaluations we may receive during our whole career than conference publications. So, we understandably care that the presentation of our results to a conference does not later prevent us from publishing them in a qualified journal, thus also making them accessible to a broader community. Even if conference and journal publications are almost at the same level in terms of accessibility, a good part of the community still believes that a meaningful result must eventually appear in some settled and trimmed form in a journal, and accordingly they confine their bibliographic searches to scientific journals.

The desire to publish our research results in a scientific journal is a legiti-

mate need that everybody in our community, including myself, feels, and I strongly believe that none of the issues I raised before preempts this need. In particular, I think that the IEEE guidelines [5] and the IEEE Control Systems Society policy available at [4] are very reasonable and quite mild. The main idea underlying both of them is the concept of “added value,” namely the leit motif of both guidelines is that each publication has to bring some novel contribution compared to the ones available in the literature, in particular, compared to the ones that the authors have previously published or just submitted for publication. In light of the three main issues related to duplication and replication I previously mentioned, this seems a very reasonable request. Admittedly, the measure of the added value may

be extremely hard to formalize and subjective. The guidelines provide several examples to lead and help authors, but in the end, the quantification of the added value will always depend on the reviewers’ and editors’ evaluation. However, is not this the case for every paper, independently of whether it relies on previous research by the same authors or not? The concept of added value has been commented upon by several persons, and I would not like to dwell on it. What I would like to highlight instead is a different concept: *transparency*.

*Transparency* is a key concept, in my view, and a keystone in a healthy scientific community. If a paper relies on previous results, even when such results have not appeared yet, they should be properly quoted and a clear comparison should be carried on. Having served for

several years as an associate editor for various journals and conferences and having been involved in some ad-hoc committees to evaluate potential unethical situations, I can assure you that no author of a paper that was properly quoting and commenting all the related references has ever been penalized, even when the paper content had a significant overlap with previous works. As I said, the concept of added value is subjective. An author can believe in good faith that even if part of his/her manuscript has appeared before, nonetheless the conclusions it leads to are meaningful and relevant, and hence the paper deserves publication. The reviewers and the editors can come to the same conclusion. If they receive all the relevant information and are properly guided through the manuscript content, they may appreciate the novel contribution in turn, even if in terms of pages it does not represent the majority of the manuscript. In principle, IEEE does not even prevent republication of results, but there must be motivated reasons (the editor must perceive some beneficial effect in disseminating the same content) and the original publication must be properly acknowledged.

So, I come to the point of claiming that transparency may be even more important than added value. I think that

an author who believes in good faith that his/her manuscript moves a step forward compared to what is available in the literature should have no fear in drawing a clear picture of the state of the art and, in particular, of the contribution to the problem solution he/she may have provided in prior publications.

In conclusion, it is true that we can no longer submit the same identical article to a journal and a conference, as used to be the case some decades ago, and yes, we probably have to put in some more effort when moving from a conference version to a journal version: to devote a few more months of research to it. But we have to look at the broader picture, keep up with the times, and perceive that the new means through which research results are disseminated require some effort and contribution from each of us. As we may wish to develop our research based on a few strong references, providing a clear overall picture of the research field, we must contribute in person for this to happen. We should try to leave aside the prevailing logic of "serial publishing," resulting sometimes in a long list of papers, each bringing an epsilon additional contribution, and retrieve some of the good-old principles (much older than the times when we were able to publish the same paper in a

journal and in a conference proceedings). A journal paper should not be an incremental progress report on work in progress but rather bring a thorough analysis and a complete picture of what the authors have been able to achieve up to that moment. If one thinks that the next week may bring more results on the same topic, maybe it is not the right time to submit the paper. At the end of our career we may have fewer papers in our publication list, but I am convinced that our impact on the research community and our reputation will significantly benefit.

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