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Researchers and Editors at the Heart of Science Communication

Armen Yuri Gasparyan

Departments of Rheumatology and Research and Development, Dudley Group NHS Foundation Trust (A Teaching Trust of the University of Birmingham, UK), Russells Hall Hospital, Dudley, West Midlands, UK

Writing and editing scholarly articles for prestigious international journals is a daunting task for novice researchers and seasoned authors alike. It's not all about accurate processing of available evidence, structuring texts, carefully wording sentences, and editing graphs. Each article is an outcome of an increasingly multi-disciplinary and multi-authored work which is supported and/or funded by public and professional communities, pharmaceutical industry, or other organizations with a strong interest in the publication, dissemination, archiving, and promotion of the processed information. Research and academic institutions worldwide consider scholarly output of their faculty as the drivers of the competition for better performance and outstanding scientometric indicators.

Given the complexity of scholarly writing, experts with knowledge and skills in their professional field often refer to the authors' editors for writing and editing assistance. Such assistance proves essential for non-Anglophone countries, where efforts of a few enthusiastic editors may prevent multiple rejections and materialize in hundreds of publishable articles, enhanced writing skills of the researchers, and improved chances of indexing local journals in prestigious biomedical databases (1, 2). The authors' editors achieve outstanding results when they work in their authors' research institutions with immediate access to specialists in statistics, research managers, journal editors, and experts in various professional fields. The institutions concerned with the quality of their scientific output launch research and development departments as well as academic courses specifically dealing with the issues of producing and disseminating new knowledge. Curricula of these courses cover diverse topics, ranging from research study design and proper English writing to peer review, open access, and publishing ethics (3, 4). Though the examples of the institutionalized courses are scarce and their efficiency is still pending evaluation, it is likely that such courses will soon become mandatory for pre- and postgraduate education worldwide, and their success will require didactic support from editorial associations and their publication outlets (5, 6).

There are many internationally recognized associations that offer recommendations on editorial practice, publish newsletters or scientific journals, and arrange educational meetings (7). Membership in these associations is an opportunity to upgrade research writing and editing skills and to improve the quality of the members' journals. The journals increasingly display links to the associations on their webpages to claim their status and the adherence to the guidance from the international community of editors. Perhaps the most prestigious and influential association for editors is the International Committee of Medical Editors (ICMJE, originally the Vancouver Group), with membership being restricted to a small group of leading experts, who represent journals such as the *New England Journal of Medicine*, *The Lancet*, and the *BMJ*. For decades, the ICMJE has been active in exploring science writing and editing worldwide and proposing strategies acceptable for most biomedical journals. The uniform structure of biomedical articles, widely known as Introduction, Methods, Results And Discussion (IMRAD), mandatory registration of clinical trials in recognized registries, conflicts of interest disclosure form, and traditional authorship criteria are all the results of the ICMJE tireless efforts that revolutionized the research writing and reporting. This year, the ICMJE revised its notorious three criteria of authorship and added the fourth one, which is the responsibility of all authors for the integrity of the entire work (8). The updated set of criteria is yet another attempt of the leading editors to curb the problem of inappropriate authorship which has been plaguing research productivity for many decades (9).

The number of journals successfully implementing ethical editing and publishing standards is increasing, which may be an indication that science editing comes of age as a scientific discipline. The 'trial and error' approach, which had been dominated in journalism over the past three centuries, is a relic of yesteryear. Critical mass of evidence which is required for improving various editorial practices is being accumulated, heralding the era of evidence-based journalism (10). Editors are now offered digital search tools to investigate the quality and productivity of own practices and to share knowledge through a large number of journals. Currently, however, these journals are scattered across several subject categories in the SCImago Journal & Country Rank and the Journal Citation Reports (JCR)

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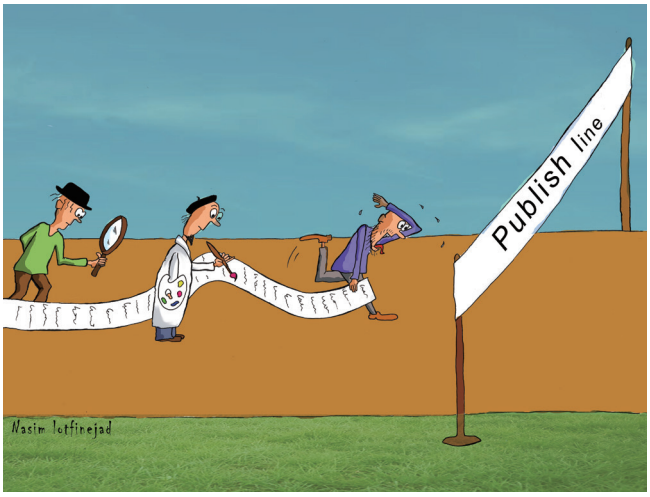

of Thomson Reuters that rank journals by analyzing citations from the Scopus and the Web of Science (WoS) databases, respectively. The largest collection of more or less relevant journals (157) can be found in the communication subject category of the SCImago database, where, for example, *European Science Editing* ranks in the 81st place with its 2-yr cites per document of 0.33, *Learned Publishing* - in the 31st place with 1.04, and *New Media and Society* - in the 1st place with 2.81. The same category in the JCR lists only 72 periodicals, with *Political Communication* being ranked first based on the latest 2-yr Journal Impact Factor (JIF, 2.415).

Original research, reviews and expert opinion pieces of interest to editors increasingly find their home in journals of biomedical ethics, informatics, and even specialized biological and clinical subject categories. On the one hand, such flow of articles prevents the accumulation of knowledge in a single most relevant category and confounds the indexing and citation analyses, but on the other, it marks the growing importance of proper written communication, peer review, editing, and bibliometric analysis across multiple specialities. As a reflection of this trend, the American Society for Cell Biology initiated the discussion of research evaluation and citation analyses of cell biology journals within the frames of its annual meeting in 2012, which ended up in publishing one of the major strategic documents for researchers, their institutions, funders, publishers, and editors - the San Francisco Declaration on Research Assessment (DORA) (11). The Declaration aimed at balancing between the over-inflated role of impact factors and the quality of scholarly papers, which are not always published in journals with 'impressive' bibliometric indicators, but have a great value for the scientific community. Importantly, some of the key points of the Declaration were earlier presented in a statement of the European Association of Science Editors (EASE) (12), a brainchild of a relatively small group of committed science editors, who arranged multiple formal discussions on the inappropriate use of impact factors as proxies of individual researchers' and journal publications' quality (13). This statement was intended to cure the global 'obsession' with impact factors primarily by actions of science editors.

Another global trend, which is aimed to improve the researchers' awareness of the best editing and publishing practices, is an arrangement of sessions on editing, publishing and bibliometric analyses at large professional gatherings. Although this trend has been shifting values in specialized fields for a while, it is now gaining momentum in clinical medicine (14). As a most recent example, one of the major events in the world's rheumatology, the British Society for Rheumatology (BSR) Annual Conference in April 2013, which I had a privilege to attend, arranged a non-clinical session on open-access publishing and archiving that might seem unusual at first sight. The topic was chosen to define open access and to explore opportunities of the mandatory open access policy, which was implemented by the Research Councils UK and the Welcome Trust, and came into effect on 1st April 2013. What was behind such a policy was the UK Government's approval of the Finch Group's report in July 2012 that supported 'gold' open access, improvements to the infrastructure of repositories, and the publishers' move towards more access to the journals' in public libraries. As a result, major research funders in Britain agreed to direct the required sums (eg £1,750 per article in *Rheumatology* [*Oxford*]) to publishers compliant with unrestricted access and re-use policy and capable of timely (within 6 months of publication) depositing final publications in PubMed Central (PMC) and UKPMC. The new policy, however, does not imply any additional financial burden on the public since all related expenses will be within the existing research budgets. The publishers now have to obtain licences such as those of the Creative Commons (CC-BY or CC-BY-NC) that allow the readers to freely distribute, re-use, re-mix, and build upon new work for commercial or non-commercial purposes. The new publishing policy has its strong advantage which is the re-shape of the whole concept of open access. It leaves no place for substandard 'open access' journals whose main purpose of existence is to charge their authors without investing in high-quality editorial work, digitization, rigorous peer review, proper indexing, and permanent archiving. *Rheumatology* and other great journals offer the subscription-based publishing to the authors who lack research funds and do not wish to pay from personal sources. However, this model allows only delayed free access and PMC deposition (after 12 months of publication). One of the important questions raised at the BSR session was whether or not the open access policy will boost citations, benefiting the authors and the journals. Preliminary studies comparing subscription and open-access articles found no difference citation-wise, which is no surprise since scientific prestige and quality of publication venues have been and will most likely remain major determinants in bibliometrics (15).

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In conclusion, science editing is becoming increasingly complex and interconnected with specialized professional fields. Authors and editors are now facing the unprecedented transformation of the whole publishing process and the emergence of digital technologies that may ease and systematize research reporting, publishing, dissemination, and archiving (16). In the process of transformation, however, what should not be lost and should be nurtured as a core value of science communication is the link between various specialists and associations with interest in quality publications.

REFERENCES

1. Matarese V. *Multiple rejections: role of the writing process. Lancet 2011; 378: 1296.*
2. Shashok K, Handjani F. *Enhancing the Quality of Research Publication: AuthorAID in the Eastern Mediterranean. J Tehran Heart Cent 2010; 5: 169-71.*
3. Kojima T, Barroga E, Yashiro T, Yoshioka T, Patrick Barron J. *Combined workshops on medical writing and publication ethics for Japanese postgraduate students and faculty members. Med Writ 2013; 22: 10-2.*
4. Barroga EF. *Cascading peer review for open-access publishing. Eur Sci Ed 2013; 39: 90-1.*
5. Marušić A, Marušić M. *Can small journals provide leadership? Lancet 2012; 379: 1361-3.*
6. Marsh J. *Education, education, education. Eur Sci Ed 2013; 39: 86.*
7. Gasparyan AY. *Familiarizing with science editors' associations. Croat Med J 2011; 52: 735-9.*
8. Stephenson J. *ICMJE: All authors of medical journal articles have "responsibility to stand by the integrity of the entire work". JAMA 2013; 310: 1216.*
9. Gasparyan AY. *Authorship and contributorship in scholarly journals. J Korean Med Sci 2013; 28: 801-2.*
10. Habibzadeh F, Yadollahie M. *Evidence-based journalism. Croat Med J 2011; 52: 212-3.*
11. Cagan R. *The San Francisco Declaration on Research Assessment. Dis Model Mech 2013; 6: 869-70.*
12. [No authors listed] EASE statement on inappropriate use of impact factors. *Eur Sci Ed 2007; 33: 99-100.*
13. Polderman AKS. *Keep your hands off our impact factor. Eur Sci Ed 2007; 33: 98.*
14. Gasparyan AY. *Combining science editors' and clinicians' efforts to advance writing and editing skills. Eur Sci Ed 2011; 37: 102-103.*
15. Gasparyan AY, Ayvazyan L, Kitas GD. *Open access: changing global science publishing. Croat Med J 2013; 54: 403-6.*
16. Chi Y. *Global trends in medical journal publishing. J Korean Med Sci 2013; 28: 1120-1.*

Address for Correspondence:
Armen Yuri Gasparyan, MD
Departments of Rheumatology and Research & Development, Dudley Group NHS Foundation Trust (A Teaching Trust of the University of Birmingham, UK), Russells Hall Hospital, Dudley DY1 2HQ, West Midlands, UK
Tel: +44.1384-244842, Fax: +44.1384-244808
E-mail: a.gasparyan@gmail.com