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From the Editors' Desks

This issue features a pair of essays discussing the San Francisco Declaration on Research Assessment. EASE was invited to comment on this early in 2013, before publication, which we did. We raised several points, including their failure to mention our own EASE statement on inappropriate use of impact factors (freely available under publications on our website), published in November 2007. This suggests that the authors of the Declaration had not done sufficient homework and that we must continue our efforts to raise the profile of EASE and its activities. It was also felt that the San Francisco Declaration took rather a Western approach, with little acknowledgement of the problems faced by academics and journals in Eastern Europe, Asia, and elsewhere. On balance, we decided that EASE being a signatory to the Declaration was one way of making ourselves more visible and the benefit would outweigh our reservations. The essays published here contribute to the debate and we will be revising our own statement for re-release in due course.

Our joint meeting with ISMTE will take place next month in Blankenberge and we are hoping that this new collaborative venture proves a success. We will use this opportunity to launch the new edition of the *EASE Science Editors' Handbook*. At this stage, we are considering selling the handbook via Amazon, which will save us having to deal with storage and distribution – and allow my sister to reclaim her storage room! This will mean that we cannot offer a discount to EASE members. However, we should be able to keep the price affordable for everyone, which will mean greater dissemination of this important guidance for editors. EASE members will have access to an online edition through our website.

We have also started inviting speakers for our Conference in Split next June. These will be announced via the website, as they confirm. Anyone interested in organizing a session or presenting a paper should contact the Secretary.

Joan Marsh

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Editorial

Journal editing: making an impact

Each June, Thomson Reuters unveils the new edition of the most popular set of journal impact indicators, as listed in the Journal Citations Reports® (JCR). These have tremendous importance globally, despite a growing demand for more intelligent use of such metrics. This issue of *European Science Editing* contains an interesting essay by R. Grant Steen,¹ who comments on the San Francisco Declaration on Research Assessment (DORA)² and highlights the need to complement the journal impact factor (JIF) with alternative metrics. The European Association of Science Editors (EASE) published its own statement on inappropriate use of impact factors several years ago³ and is one of the signatories of the Declaration.

One problem with JIF is that not all journal editors understand the currently available impact measures⁴ and, even if they do, most journals do not display complementary metrics on their websites. A good and rare example is set by Dove Medical Press (New Zealand), which gives Scopus-based citation metrics along with the JIF values.

The latest edition of JCR ranks approximately 12,000 journals and conference proceedings from more than 3,300 publishers in over 60 countries.⁵ Interestingly, 66 journal titles were suppressed owing to “anomalous citation patterns resulting in a significant distortion of the Journal Impact Factor”.⁵ These journals will now be closely monitored by JCR staff and restored to a future edition of the JCR “when the problem of citation concentration has been resolved.” While this excludes journals that probably had an unusually high level of self-citation, there are other ways to play the system quite legitimately. It is much easier to achieve a high impact factor with a small journal: an extreme example is *CA: A CancerJournal for Clinicians*. This journal received 13,722 total cites with just 25 published items in 2012, and reached the skyrocketing JIF of 153.459! Such distortions highlight the importance of tight quality control at all stages of journal editing and publishing.

Exerting such quality control becomes an uphill task as editors face an unprecedented increase in the number of submissions and conflicting demands on their time. They are required to solicit high quality articles, evaluate each part of the manuscript, obtain reviews, balance the reviewers’ and authors’ points, then make decisions relying on their professional knowledge and the expectations of their readers. They are also required to promote their journal’s contents and thereby increase its readership.

One activity that may improve all aspects of a scholarly paper and thereby its readability and citability is substantive editing. Such work includes validation of all facts, terms and citations, as well as correction or even re-writing of some or all sections of the manuscript, starting with the title. A clearly written, informative abstract can certainly improve the impact of an article, since for subscription journals this may be the only part of the paper that can be

read by many, and even for readily accessible articles the abstract may often be the only part that is read. Clarifying the presentation and interpretation of statistical tests may increase chances of the re-use of original data in future systematic reviews and meta-analyses, thus increasing citations and, more importantly, furthering the course of science. Finally, proper assessment of the correctness and relevance of reference lists may improve the validity of this important section. Unfortunately, as the scope of the journal editor’s activities expands, coupled with a trend in increased submissions and tightening of publishers’ budgets, substantive editing is a threatened occupation, and not many journals practise it.

The latest EASE-forum digest (this issue)⁶ reflects the fact that editorial tasks widely vary across Anglophone and non-Anglophone countries and tend to expand globally. Surprisingly, there is still no universal definition of editor and editing, although all experts agree that editing is not limited to copyediting and proofreading.

The quality, readability and even citability of both a paper and a journal may be enhanced by substantive editing. Although it requires deep knowledge in science communication and takes time and effort, substantive editing remains largely unappreciated not just by editors and publishers, but also by authors, who often look for short and quick ways of publishing their precious papers.

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References

- 1 Steen RG. Journal Impact Factor: baby and bathwater discarded? *European Science Editing* 2013;39(3):64–65.
- 2 San Francisco Declaration on Research Integrity. Available at www.ascb.org/SFdeclaration.html [Accessed 1 July 2013].
- 3 [No authors listed] EASE statement on inappropriate use of impact factors. *European Science Editing* 2007;33(4):99–100.
- 4 Marx W, Bornmann L. Journal Impact Factor: “the poor man’s citation analysis” and alternative approaches. *European Science Editing* 2013;39(3):62–63.
- 5 Journal Citation Reports® Notices. Available at http://admin-apps.webofknowledge.com/JCR/static_html/notices/notices.htm [Accessed 1 July 2013].
- 6 EASE-Forum Digest: March to June 2013. *European Science Editing* 2013;39(3):74–75.

Original articles

3D or 3-D: a study of terminology, usage and style

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Abstract The terms “3D” and “3-D” are two alternative acronyms for the term “three-dimensional”. In the published literature both variants are commonly used but what is the derivation of the two forms and what are the drivers of usage? This paper surveys the published stereoscopic literature and examines publication-style policies to understand forces and trends.

Keywords Stereoscopic, 3D, 3-D, three-dimensional, style, terminology.

Background

The term “three-dimensional” has probably been with us since philosophers discovered and discussed the concept of dimensions. The term can be used to refer to anything that has height, width and depth – three dimensions. Conveniently, “three-dimensional” can also be abbreviated to “3-D” or “3D.”

The earliest example of the use of the term “three-dimensional” in relation to photography I have been able to locate is Kennedy (1936),¹ who wrote: “It is true that the most fantastic proposals purporting to disclose a short-cut to three-dimensional photography are repeatedly made by persons who claim that by chance or ingenuity they can produce a stereoscopic effect - note the word effect - without taking two pictures and particularly without providing adequate means whereby each eye sees its proper image.” However, he doesn’t use the abbreviation “3D” or “3-D” in the article.

The earliest example of the abbreviation “3-D” I have located is Spottiswoode et al. (1952),² who wrote: “Up to now the production of three-dimensional (3-D) films has been sporadic.” Perhaps there are earlier examples.

Although the acronym “3D” was first used in relation to stereoscopic 3D movies, and can also be used to refer to other stereoscopic topics including 3DTV, 3D displays, 3D cameras and 3D vision, it can also be used to refer to non-stereoscopic technologies including 3D printing (additive manufacturing), 3D computer graphics (using monoscopic depth cues to give a computer-generated image added realism), 3D laser scanning, 3D computer-aided design (CAD), 3D modelling, and DirectX 3D. In order to distinguish stereoscopic 3D from other uses of “3D” some authors use the term “s3D”, short for stereoscopic 3D.

It is apparent from the literature that in early times the hyphenated form of “3-D” was used predominantly. For at least the past 30 years, both the hyphenated and non-hyphenated forms “3-D” and “3D” have been in common usage. It seems formal English tends to prefer the hyphenated form, whereas modern usage tends to use the non-hyphenated form, but is there a right and a wrong? Can the two styles co-exist?

Methods

We start this examination by looking at the house styles of various publications relevant to the stereoscopic imaging field. We then consider current trends of usage of language in print. Finally we consider the implications of choosing one style or the other.

Results

First we present the results of the house style survey, and subsequently present the statistical occurrence of the two styles over the past 30 years.

House styles

Many publications have a house style that prescribes the use of the hyphenated version “3-D.” A number of publications were surveyed to determine their policy.

IEEE’s senior copy editor for IEEE Spectrum magazine, Joe Levine,³ wrote:

IEEE publications like standards, transactions, and proceedings use a more formal style than IEEE Spectrum. While Spectrum doesn’t take up all the latest trends, we do consider the styles of mainstream magazines and newspapers. We’re encouraged to use a conversational tone. The traditional practice in most house styles is to spell out “three-dimensional” on first reference and then to use “3-D.” We only recently started allowing “3-D” to be used in all cases. Our editors urged me to change this, arguing that most of the time people hear in their heads “three dee.” And in certain contexts it just sounds odd to spell it out: For example, “three-dimensional television” seems to refer to the object rather than the technology.

I don’t think there’s an explicit policy on “3-D” vs. “3D” throughout [IEEE] and all [its] societies. I have found that the IEEE Computer Society has its own style guide: <http://www.computer.org/portal/web/publications/styleguide> and they have indeed adopted the no-hyphen style.

With regard to publications from the Society for Information Display (SID), Jay Morreale,⁴ Managing Editor of the Journal of the SID (JSID) wrote:

In both [Information Display] Magazine and JSID, we have been using “3-D” since ID’s inception in 1987 and since I became Managing Editor of the Journal back in 1978. My goal is to be consistent until the style dictates a change.

As far as references are concerned, it is policy NOT to change references because it is understood that searches need to be based on “original” paper titles, although I must admit the urge is definitely there to edit the titles of papers in the references.

John Dennis,⁵ the editor of the National Stereoscopic Association magazine Stereo World, said:

We follow a style of using “3-D” in articles except when “3D” is used as part of a movie or book title or product name.

Most newspapers use the “3-D” style – although there are some exceptions, or even inconsistencies within the same publication or article. Most newspapers appear to follow The Associated Press Stylebook,⁶ which recommends the “3-D” form. In contrast, The Yahoo! Style Guide,⁷ which is primarily intended for online publishing, recommends the “3D” form.

SPIE does not apply a preferred style of either “3-D” or “3D” in their proceedings or journals. In the proceedings volumes, the authors are free to choose the form they wish. The same is intended to apply to their journals, however my experience is that well-meaning sub-contracted proof editors often apply “3-D” style unless the author makes a representation otherwise.

The editor of SPIE Professional, Kathy Sheehan,⁸ wrote:

Our magazine generally follows AP style. We have a small style list that sometimes over-rides the AP style, which we do in the case of “3D”. Although we would edit an author’s copy, we would not change the name of a previously published book title, article, etc.

Mark Fihn,⁹ editor of 3rd Dimension newsletter, wrote:

We try to always use “3D”. We don’t give authors any sort of style guide, so we get inputs using either “3D”, “3-D”, or both.

I [usually] do a final edit to change “3-D” to “3D”.

We use “3D” because frequently there’s another hyphen in the equation, such as “3D-enabled” or “pseudo-3D” or some such... It seems awkward to have “3-D-enabled” or “pseudo-3-D”

The evolution of language

Languages evolve over time. Strunk and White¹¹, in their book “The Elements of Style,” wrote: “Do not use a hyphen between words that can better be written as one word: water-fowl, waterfowl. Common sense will aid you in the decision, but a dictionary is more reliable.” and particularly “The steady evolution of the language seems to favor union: two words eventually becoming one, usually after a period of hyphenation.”

A survey of 1293 stereoscopic focused papers¹⁰ published by SD&A, IS&T and SPIE over the period 1977-2009 reveals a trend towards the use of the non-hyphenated form. It is important to note that a house style was not applied to these papers so this provides a good unbiased survey of usage amongst a scientific audience. The survey is broken down into roughly decade-long periods:

- 1977-1989: (231 papers containing 1567 pages)
 - “3D” 921 instances in 91 papers
 - “3-D” 1623 instances in 131 papers
- 1990-1989: (407 papers containing 3535 pages)
 - “3D” 3318 instances in 307 papers
 - “3-D” 2003 instances in 165 papers
- 2000-2009: (655 papers containing 6229 pages)
 - “3D” 11627 instances in 573 papers
 - “3-D” 2827 instances in 263 papers

These statistics are illustrated in Figure 1 and Figure 2:

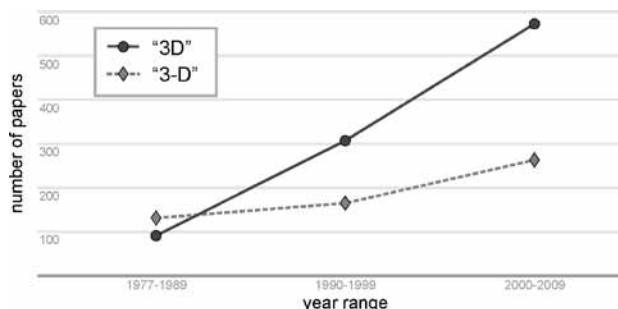


Figure 1: Number of papers in the SD&A 20-year DVD-ROM¹⁰ containing the term “3D” or “3-D” in roughly decade period groups.

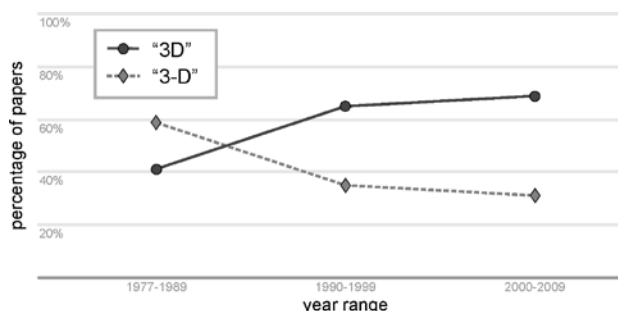


Figure 2: Percentage of number of papers in the SD&A 20-year DVD-ROM¹⁰ containing the term “3D” or “3-D” in roughly decade period groups.

According to this publication record, the “3-D” form was favoured in the 70s and 80s, but over the past couple of decades the unhyphenated “3D” form has become more favoured by scientific authors.

Our next statistic considers the occurrence of “3D” and “3-D” in the May (or April) 2013 issue of several professionally produced publications relevant to the 3D field. Table 1 summarizes counts of “3D” and “3-D”. The count is conducted separately for the text of the publication, which will be affected by the publication’s house style, and in advertisements (adverts), which will not be affected by the publication’s house style.

Table 1: The occurrence of “3D” and “3-D” in various publications. Values greater than 50% are shown in bold.

Publication	Occurrences (count) percentage %			
	in text		in adverts	
	“3-D”	“3D”	“3-D”	“3D”
Stereo World ¹²	(88) 79%	(24) 21%	(12) 14%	(76) 86%
Information Display ¹³	(103) 82%	(23) 18%	(0) 0%	(9) 100%
IEEE Spectrum ¹⁴	(3) 100%	(0) 0%	(0) 0%	(2) 100%
SPIE Professional ¹⁵	(1) 7%	(14) 93%	(0) 0%	(2) 100%
i3 ¹⁶	(0) 0%	(76) 100%	(0) -	(0) -
3rd Dimension ¹⁷	(10) 1%	(718) 99%	(0) 0%	(2) 100%

It can be seen that, not surprisingly, the “3-D” form predominates in the text of the three publications identified earlier which apply a house style of “3-D”. Perhaps tellingly, the occurrence of the non-hyphenated form “3D” predominates in the advertisements appearing in those same publications – indicating the preference of the advertisers or their marketing consultants for the non-hyphenated form. The latter three publications, which are all significantly younger than the earlier three publications, all have a predominance of the “3D” form.

Another statistic that sheds some light on common usage is the incidence of “3D” and “3-D” in Google Searches¹⁸ conducted by the general public as illustrated in Figure 3 and Figure 4.

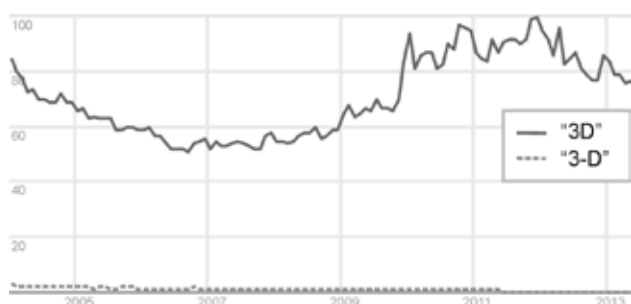


Figure 3: Incidence of “3D” and “3-D” in Google Search statistics plotted together. “3-D” peak is only ~3% of “3D” peak. The number 100 represents the peak search interest.

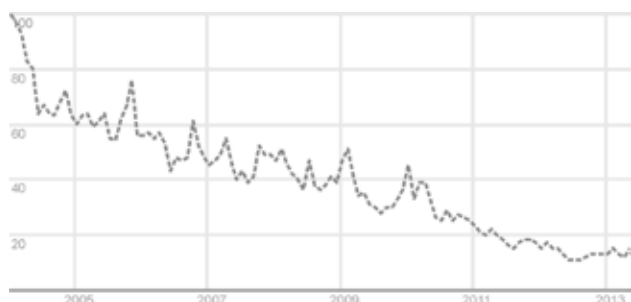


Figure 4: The incidence of “3-D” in Google Search statistics plotted in isolation. 100 represents peak search interest.

Figure 3 reveals that the general public strongly favours “3D” over “3-D” approximately 100:1 in 2013. Although the volume of searches using the term “3D” has had a bit of a wave, over a 9-year period the volume of searches has been fairly steady. Figure 4 reveals that the volume of searches for “3-D” has experienced a heavy decline. These statistics almost function as a popular vote, but importantly reveal that publications using the “3-D” form will miss hits from the vast majority of searches for the “3D” form (unless the search engine automatically combines “3D” and “3-D” results).

Discussion

One could argue that the use of the hyphen in the “3-D” abbreviation is unnecessary. An abbreviation is after all meant to be short, and in this instance the hyphen doesn’t add anything vital to the abbreviation. Furthermore, when “3D” and “3-D” are read aloud, they both sound the same anyway.

As mentioned earlier, some terms already include hyphenation (eg 3D-Ready, 3D-capable, 3D-Con) – the addition of another hyphen for the “3D” in these terms would produce an awkward result. A similar thought applies to extended acronyms such as “3DTV” – “3-DTV” seems awkward.

Regardless of an author’s own preference, when writing a manuscript, he or she should be careful that proper nouns are used in the form defined by the originator (eg “Blu-ray 3D”, not “Blu-ray 3-D”). When citing references, authors should be careful to quote the title exactly as written in the original paper (with or without hyphens) – a change in hyphenation could break automatic citation listing. The hyphenation of email addresses and web addresses should also not be changed – otherwise they may simply be broken. Finally, when authors are checking their manuscript proof before publication, they should be sure to check that the hyphenation of proper nouns, references, web addresses and email addresses have not been changed in the proof editing process - a simple search and replace is tempting but can break all of these items.

It was mentioned earlier that there is some desire to differentiate stereoscopic 3D from other uses of 3D by using the abbreviation “s3D” or “S3D”. Additionally, some authors have suggested that “3-D” could be used for stereoscopic specific discussions, and “3D” used for non-stereoscopic uses.¹⁹ Although this proposal does have some merit, this particular style is not currently in widespread use, and differs from the styles required by most publications.

Conclusion

Is it time to change the conventions and house styles that require the use of the hyphenated form of “3-D”? I propose that the statistics revealed in this paper show the time is right to make that change.

Giving Lenny Lipton,²⁰ author of “Foundations of the Stereoscopic Cinema,”²¹ the last word:

You cannot imagine how passionate some people are about the hyphen. Or maybe you can. Simpler is better and how does 2-D look to you?

References are listed at the bottom of page 62.

Essays

Journal Impact Factor: “the poor man’s citation analysis” and alternative approaches

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Abstract The Journal Impact Factor has a number of drawbacks preventing its use for assessment of separate journal articles and individuals. With that in mind, most experts would endorse the San Francisco Declaration on Research Assessment (DORA), which highlights the appropriate use of bibliometric indicators for quantitative research assessments. To curb the problem of skewed citations, an alternative, normalised metric is proposed. Percentiles, or percentile rank classes method, is particularly useful for normalisation. It is also advisable to use specific percentile rank classes and to assess individual scientists with $P_{top\ 10\%}$ or $PP_{top\ 10\%}$ indicators.

Keywords Bibliometrics; research evaluation; alternative metrics.

In the process of quantitative (bibliometric) research evaluation, citation analysis may be erroneously replaced by the use of the journal impact factor (JIF).¹ This is unacceptable, since the JIF is merely an impact measure for scholarly journals. It was originally proposed to help

librarians distinguish influential journals of interest to their readership, but not to evaluate a single paper in a journal or research performance of a scientist.²

Experts in bibliometrics are well aware that the JIF has a number of drawbacks preventing its use for research assessment. Most importantly, the distribution of citations to a journal’s articles is often highly skewed since a large number of citations go to a few items in the journal. As a result, citation rates are influenced by a small fraction of highly cited items. The JIF’s timeframe (two years) is often too short for comprehensive evaluation of a journal performance in slowly developing disciplines. Adjustment of citation behaviour for disciplines, cross-disciplinary comparisons and comparisons of journals publishing predominantly certain types of articles (eg reviews, original research papers) are impossible with the use of JIF.

Anthony van Raan once noted that “if there is one thing every bibliometrician agrees, it is that you should never use the journal impact factor to evaluate research performance for an article or for an individual — that is a mortal sin”.³

References - continued from page 61

- 1 Kennedy C. The Development and Use of Stereo Photography for Educational Purposes. *Journal of the Society for Motion Picture Engineers* 1936;26:3-17. doi: 10.5594/J01280
- 2 Spottiswoode R, Spottiswoode NL, Smith C. Basic Principles of the Three Dimensional Film. *Journal of the Society for Motion Picture and Television Engineers* 1952;59:249-286. doi: 10.5594/J01778
- 3 Joe Levine, IEEE, personal communication, 23 September 2011.
- 4 Jay Morreale, SID, personal communication, 1 September 2011.
- 5 John Dennis, NSA, personal communication, 1 September 2011.
- 6 *The Associated Press Stylebook and Briefing on Media Law*. New York: Associated Press; 2013. ISBN 978-0-917360-57-2.
- 7 *The Yahoo! Style Guide*. New York: Yahoo! Inc; 2010. p. 483. ISBN 978-0312569846.
- 8 Kathy Sheehan, SPIE, personal communication, 29 May 2013.
- 9 Mark Fihn, Veritas et Visus, personal communication, 28 May 2013.
- 10 Woods AJ, Merritt JO, Fisher S, Bolas M, Benton S, Holliman NS, et al. (eds). *Selected SPIE/IS&T papers on DVD-ROM: Stereoscopic Displays and Applications 1990-2009: A Complete 20-Year Retrospective - and The Engineering Reality of Virtual Reality 1994-2009 (CDP51)*. Bellingham (WA): SPIE; 2010. ISBN: 978-0-8194-7659-3
- 11 Strunk W, White EB. *The Elements of Style*. 4th ed. Boston, Massachusetts: Allyn & Bacon; 2000. ISBN: 0-205-30902-X
- 12 *Stereo World*. 38(6) (May/June 2013). Portland, Oregon: National Stereoscopic Association (NSA); 2013. Available at <http://www.stereoworld.org/> [Accessed 19 June 2013].
- 13 *Information Display*. 9(3) (May/June 2013). Campbell, California: Society for Information Display (SID); 2013. Available at <http://informationdisplay.org/> [Accessed 19 June 2013].
- 14 *IEEE Spectrum*. 50(5) (INT) (May 2013). New York: Institute of Electrical and Electronics Engineers (IEEE); 2013. Available at <http://spectrum.ieee.org/> [Accessed 19 June 2013].
- 15 *SPIE Professional*. 8(2) (April 2013). Bellingham, Washington: SPIE; 2013.
- 16 *It Is Innovation (i3)*. 1(3) (May 2013). Arlington, Virginia: Consumer Electronics Association (CEA); 2013. Available at <http://www.ce.org/i3> [Accessed 19 June 2013].
- 17 *3rd Dimension*. 8(2) (May 2013). Temple, Texas: Veritas et Visus; 2013. Available at http://www.veritasetvisus.com/3rd_dimension.htm [Accessed 19 June 2013]
- 18 Google Trends [Internet]. Mountain View, California: Google Inc.; 2013. [updated 30 May 2013; cited 30 May 2013]. Available at www.google.com/trends
- 19 Eric Kurland, 3-DIY, personal communication, 28 May 2013.
- 20 Lenny Lipton, Leonardo IP, personal communication, 8 Nov 2011.
- 21 Lipton L. *Foundations of the Stereoscopic Cinema – A Study in Depth*. New York: Van Nostrand Reinhold Company; 1978.

He called such evaluation ‘the poor man’s citation analysis.’¹ With that in mind, most experts would endorse the San Francisco Declaration on Research Assessment (DORA),⁴ which aims to turn the authors’ attention to appropriate bibliometric indicators fit for quantitative research assessments. DORA has attracted a lot of comments and responses, including a statement from Thomson Reuters reiterating the inappropriateness of JIF as a measure of the quality of individual articles and encouraging authors to choose publication venues based on factors not limited to the JIF.⁵ Nonetheless, it is unlikely that alternative and more appropriate citation metrics will soon gain recognition as research assessment tools outside the community of bibliometricians.

Comparing citation counts to individual journal articles is more informative than weighing JIF values of the journals containing these articles. Unfortunately, the meaning of these citation metrics is not widely understood. For bibliometricians, citation analysis is the impact measurement of individual scholarly items based on citation counts. Citation impact is just one aspect of the article’s ‘quality’, which complements its accuracy and originality. Since a clear definition of the scientific quality does not exist, no all-in-one metric has yet been proposed. At the same time, it is well known that the citation-based data correlate well with research performance (quality) asserted by peers. A prime example of the latter is the UK research assessment exercise ratings, which proves that citations can be used as a proxy for measuring research performance, provided the indicators and measurements are designed and approved by bibliometricians.

Proposal of a new bibliometric indicator usually stems from empirical observations. One is that the differences in average citation counts in various disciplines depend on the activity and productivity of the contributors. Citation rates are time-dependent: the older the publication, the more likely it is highly cited. Comparing citation counts in various disciplines and at different time points is incorrect, unless there is a proper standardisation or normalisation. Normalisation is possible by using reference sets,⁶ which assess the citation impact of comparable publications. The reference sets contain publications that were published in the same year and subject category. The arithmetic mean of the citations for all publications in a reference set is calculated to specify the expected citation impact.⁷ This enables to calculate the Relative Citation Rate (RCR) - the observed citation rate of an article divided by the mean expected citation rate.

As with the JIF, the calculation of RCR has an inherent disadvantage related to the lack of normalisation of citations for subject category and publication year. To curb the problem of skewed citations, an alternative, normalised metric should be used. Percentiles, or percentile rank classes method is particularly useful for the normalisation.⁸ The percentile of an article gives an impression of the impact it has achieved in comparison to similar items in the same publication year and subject category. Unlike the RCR, percentiles are not affected by skewed distributions: highly-cited items do not receive excessively high weight.

The relative ease of the percentiles’ calculation is one of their advantages. All publications in a given year and subject category provide the reference set. The citations of these publications are the yardstick. The publications are sorted by citation numbers and are broken down into percentile ranks ranging between 0 and 100. The percentile of a publication is its relative position within the reference set: the higher the rank, the more citations the publication has. For example, a value of 90 indicates that the publication belongs to the 10% of most-cited ones. A value of 50 is the median level, which means an average impact.

The publication set for the percentiles methods ranges from single articles to publication records of an individual scientist or an institution. The percentiles for a certain publication set can be analysed by different methods.⁹ Along with the percentiles, it is possible to focus on specific percentile rank classes, and particularly on the assessment of individual scientists with $P_{top\ 10\%}$ or $PP_{top\ 10\%}$ indicators.¹⁰ Both indicators count the number of successful publications normalised for publication year and subject category. $P_{top\ 10\%}$ is the number and $PP_{top\ 10\%}$ is the proportion of publications that belong to the top 10% most-cited ones.

Given the advantages of the percentiles and related $PP_{top\ 10\%}$ the Leiden Ranking and SCImago Institutions Rankings have already incorporated these metrics in the global rankings of academic and research institutions.

References

- 1 Adam D. The countinghouse. *Nature* 2002;415(6873):726–729. doi:10.1038/415726a.
- 2 Bornmann L, Marx W, Gasparyan AY, Kitas GD. Diversity, value and limitations of the journal impact factor and alternative metrics. *Rheumatology International* 2012;32(7):1861–1867. doi: 10.1007/s00296-011-2276-1.
- 3 Van Noorden R. Metrics: A profusion of measures. *Nature* 2010;465(7300):864–866. doi: 10.1038/465864a.
- 4 San Francisco Declaration on Research Integrity. Available at www.ascb.org/SFdeclaration.html [Accessed 1 June 2013].
- 5 Thomson Reuters Statement Regarding the San Francisco Declaration on Research Assessment. Available at http://researchanalytics.thomsonreuters.com/statement_re_sfdra/ [Accessed 1 June 2013].
- 6 Vinkler P. The evaluation of research by scientometric indicators. Oxford, UK: Chandos Publishing, 2010.
- 7 Schubert A, Braun T. Relative indicators and relational charts for comparative assessment of publication output and citation impact. *Scientometrics* 1986;9(5-6):281–291.
- 8 Bornmann L, Marx W. How good is research really? Measuring the citation impact of publications with percentiles increases correct assessments and fair comparisons. *EMBO Reports* 2013;14(3):226–230. doi: 10.1038/embor.2013.9.
- 9 Bornmann L. How to analyze percentile citation impact data meaningfully in bibliometrics: The statistical analysis of distributions, percentile rank classes, and top-cited papers. *Journal of the American Society for Information Science and Technology* 2013;64(3):587–595. doi: 10.1002/asi.22792.
- 10 Bornmann L. A better alternative to the h index. *Journal of Informetrics* 2013;7(1):100. doi: 10.1016/j.joi.2012.09.004.

Journal Impact Factor: baby and bathwater discarded?

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Abstract The San Francisco Declaration on Research Assessment (DORA) criticises Journal Impact Factor (JIF) without offering an alternative. It is true that JIF is flawed and can be misused but it also helps match manuscript to publication venue and identifies references likely to be authoritative. Above all, JIF helps librarians make difficult purchase decisions. JIF is a way to assess a journal, not an individual paper. If the DORA authors wish to abandon JIF, an appropriate alternative should be proposed.

Keywords Research assessment; research impact; journal metrics; science communication.

The San Francisco Declaration on Research Assessment (DORA) was cobbled together by a consortium of editors and publishers at the annual meeting of the American Society for Cell Biology in 2012.¹ DORA is a sprawling document that attempts to serve a variety of needs, but may serve none of them well.

Its main goal is “to improve the ways in which the output of scientific research is evaluated by funding agencies, academic institutions, and other parties.”² This is a noble goal, though broad, in that the “other parties” named include publishers, researchers, and organisations that supply journal metrics.

The problem with the Declaration is that “the scientific content of a paper is much more important than publication metrics or the identity of the journal in which it was published.” This is true, but unhelpful. No hint is given as to how that importance should be measured, if not by use of the Journal Impact Factor (JIF).

JIF is a measure of how often, on average, articles in a journal are cited over time, and it was conceived as a way to help librarians select amongst a range of journals when allocating subscription money.¹ Clearly, JIF is flawed, it can be misused, and it has become fashionable to dislike it.² From my perspective, any journal ranking system in which *CA: A Cancer Journal for Clinicians* has a JIF of 153.5 (2012 Journal Citation Reports®, Thomson Reuters 2013) and *The New England Journal of Medicine* has a JIF of 51.7 is imperfect. Yet, this is a trivial reservation and more substantial issues have been noted.³ For example, it has been claimed, without evidence or citation, that JIF is used to decide whether or not authors are hired, promoted, tenured, or given grant funding.⁴ If this happens, it is evidence of a superficial understanding of what JIF can do.

Problems with JIF have been detailed: it is substantially affected by publication of a few widely-cited reviews or methods papers;⁴ fewer citable articles per issue leads to higher JIF; JIF can be manipulated or “gamed” by excluding ostensibly citable articles from consideration, or by encouraging authors to cite other articles in the same journal, or by reducing the number of non-review articles published;⁴ the for-profit company that calculates JIF has no obligation to be accountable to the true stakeholders, whose work is being evaluated;⁴ and calculation of JIF is based on final print publications.⁴ Because most journals make electronic copies

available long before print versions, online-to-print delays artificially inflate JIF for an individual article, with greater inflation for longer delays.⁵

The notion that JIF can be led astray or even “gamed” is a bit shocking. Yet, a single blockbuster paper can skew JIF badly. The first human genome paper in *Nature* has been cited more than 10,000 times (as of 7 June 2013), and this disproportionate impact increased the apparent JIF of every other paper published in *Nature*.⁶ More disturbingly, *Current Biology* had a JIF of 7.0 in 2002, which jumped to 11.9 in 2003.⁶ At the same time, the number of citable articles in *Current Biology* dropped from 1,032 in 2002 to 634 in 2003, though the total number of articles increased.⁶ The company that calculates JIF has not refuted serious charges that relate to such miscalculations.⁷

There is also clear evidence that JIF can be systematically misleading. For example, the rate of citation varies from field to field. Papers in the life sciences are cited on average more than six times each; papers in mathematics and computer sciences are cited on average less than once.⁸ Therefore, JIF is a poor predictor of the impact of specialist papers in a generalist journal.⁹ An article in English is likely to be cited more than an article in another language,¹⁰ and JIF is more likely to be used as a metric of research quality in Asia and Africa than in Europe or the United States.¹⁰

There is also clear evidence that JIF can be used to assess the quality of research. There was a strong correlation between expert opinion and journal of publication amongst 669 papers assessed by the Wellcome Trust.¹¹ This happens because a small minority of journals publish the vast majority of key papers and consequently receive the majority of citations.¹² Despite an enormous choice of publication venues, authors publish the most influential papers in a small number of journals. More than half of the 2,100 most influential papers over a decade were published in just six journals.¹² While there is uncertainty in the point estimate of JIF, and substantial overlap in estimated JIF amongst similar journals,¹³ JIF spans a large and meaningful range. In broad terms, JIF is a measure of editorial quality.¹⁴

The key insight is that JIF is a way to assess a journal, not an individual paper. Any use of JIF to assess an individual paper or the output of a particular scientist is naïve. We also cannot condone use of JIF to assess a grant application or tenure request. But JIF is an excellent way to measure a journal’s reputation, and JIF can also be useful for research.¹⁵

Research has changed in the digital age. There are many publication venues, and it is hard to find the right place to publish a particular manuscript. There is a vast number of references to sort through, and JIF can help identify those likely to be authoritative. There are new journals emerging, and JIF can help librarians make difficult purchase decisions. There are alternatives to JIF,¹⁶⁻²⁰ but it is unclear if the alternatives are as useful as the original. If DORA is going to call for abandoning JIF, their burden is to determine what should replace it.

References

- 1 Misteli T. Eliminating the impact of the Impact Factor. *The Journal of Cell Biology* 2013;201(5):651–652. doi: 10.1083/jcb.201304162
- 2 San Francisco Declaration on Research Integrity. Available at www.ascb.org/SFdeclaration.html [Accessed 7 June 2013].
- 3 Seglen PO. Why the impact factor of journals should not be used for evaluating research. *BMJ* 1997; 314(7079):498–502.
- 4 [No authors listed]. The impact factor game. It is time to find a better way to assess the scientific literature. *PLoS Medicine* 2006;3(6):e291. doi: 10.1371/journal.pmed.0030291
- 5 Tort AB, Targino ZH, Amaral OB. Rising publication delays inflate journal impact factors. *PLoS One* 2012;7(12):e53374. doi: 10.1371/journal.pone.0053374
- 6 Rossner M, Van Epps H, Hill E. Show me the data. *The Journal of Cell Biology* 2007;179(6):1091–1092. doi: 10.1083/jcb.200711140
- 7 Rossner M, Van Epps H, Hill E. Irreproducible results: a response to Thomson Scientific. *The Journal of Cell Biology* 2008;180(2):254–255. doi: 10.1083/jcb.200801036
- 8 Adler R, Ewing J, Taylor P. Citation Statistics. *Statistical Science* 2009;24(1):1–14.
- 9 Postma E. Inflated impact factors? The true impact of evolutionary papers in non-evolutionary journals. *PLoS One* 2007;2(10):e999. doi: 10.1371/journal.pone.0000999
- 10 Buela-Casal G, Zych I. What do the scientists think about the impact factor? *Scientometrics* 2012;92(2):281–292. doi: 10.1007/s11192-012-0676-y
- 11 Allen L, Jones C, Dolby K, Lynn D, Walport M. Looking for landmarks: the role of expert review and bibliometric analysis in evaluating scientific publication outputs. *PLoS One* 2009;4(6):e5910. doi: 10.1371/journal.pone.0005910
- 12 Ioannidis JPA. Concentration of the most-cited papers in the scientific literature: analysis of journal ecosystems. *PLoS One* 2006;1:e5. doi: 10.1371/journal.pone.0000005
- 13 Greenwood DC. Reliability of journal impact factor rankings. *BMC Medical Research Methodology* 2007;7:48. doi: 10.1186/1471-2288-7-48
- 14 Matarese V. Relationship between quality and editorial leadership of biomedical research journals: a comparative study of Italian and UK journals. *PLoS One* 2008;3(7):e2512. doi: 10.1371/journal.pone.0002512
- 15 Steen RG, Casadevall A, Fang FC (2013) Why has the number of scientific retractions increased? *PLoS One* 8(7): e68397. doi:10.1371/journal.pone.0068397
- 16 Bernstein J, Gray CF. Content Factor: a measure of a journal's contribution to knowledge. *PLoS One* 2012;7(7):e41554. doi: 10.1371/journal.pone.0041554
- 17 Bollen J, Van de Sompel H, Hagberg A, Chute R. A principal component analysis of 39 scientific impact measures. *PLoS One* 2009;4(6):e6022. doi: 10.1371/journal.pone.0006022
- 18 Yan KK, Gerstein M. The spread of scientific information: insights from the web usage statistics in PLoS article-level metrics. *PLoS One* 2011;6(5):e19917. doi: 10.1371/journal.pone.0019917
- 19 Vanclay JK. Impact factor: outdated artefact or stepping-stone to journal certification? *Scientometrics* 2012;92(2):211–238. doi: 10.1007/s11192-011-0561-0
- 20 Bornmann L, Marx W, Gasparyan AY, Kitas GD. Diversity, value and limitations of the journal impact factor and alternative metrics. *Rheumatology International* 2012;32(7):1861–1867. doi: 10.1007/s00296-011-2276-1

Grey literature: a growing need for good practice

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Abstract Before the internet, grey literature addressed specific audiences and had limited circulation; it was produced mainly in-house with varying editorial standards. Today grey literature is increasingly available online and new responsibilities arise for its authors and issuing organizations. The challenges of a wider dissemination of grey literature are outlined; in particular, grey literature authors and issuing organizations should become aware of basic editorial standards and guidelines, including both technical and ethical issues.

Keywords Grey literature, guidelines, standards, scientific writing, technical reports.

Research scientists do not always adhere strictly to a journal's instructions to authors. When it comes to informal documents, such as those falling under the umbrella term of grey literature, scientists are even less inclined to follow editorial standards and guidelines. The broad category of grey literature includes technical reports, reports to funding agencies, teaching material, operational protocols, guidelines for laboratory techniques, translations and or information leaflets addressed to specific targets or produced for very practical aims.¹

Before the advent of the internet, grey literature had a limited circulation. It was produced mainly in-house, for practical rather than prestige purposes, and often had a rather shabby look—defined as “grey” to differentiate it from white or open publications appearing in commercial journals and books. It was therefore the Cinderella of literature.²

During the 6th International Conference on Grey Literature held in New York in 2004,³ the following definition for grey literature was adopted:

“information produced on all levels of government, academia, business and industry in electronic and print formats not controlled by commercial publishing, ie where publishing is not the primary activity.”

The limited circulation is no longer applicable because grey literature can now be freely and widely available via the Internet.

The most recent international conference on grey literature, held in Rome in November 2012, focused on tracking innovation. Disseminating research results in all forms is now widely recognised as best practice by many national and international institutions, not only for research but also for society. For example, the European Commission supports and encourages sharing all types of information and data, including grey literature.⁵ This implies a paradigm shift in information dissemination that goes beyond classical scholarly publications and confers a different status on grey literature as an accepted and important source of information circulated online.

Our recent search (May 2013) using PubMed, the most important information source for biomedicine, showed a massive increase in the number of times the term “grey literature” occurred in titles and abstracts of articles indexed in the database in the last 20 years, whereas from its first occurrence in 1976 until 2002, the number was very low and practically constant (Figure 1).

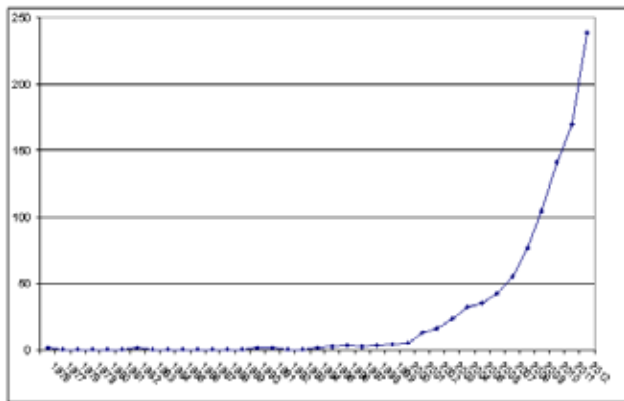


Figure 1. Occurrences of the term “grey literature” in titles or abstracts of articles indexed in PubMed (1976–2012)

We also searched the Cochrane Library, a collection of high-quality documents on healthcare research, including 7092 items as a whole in May 2013. The search retrieved 141 items tagged with the term “grey literature” in abstracts or titles from 1999 to 2012, with an increasing trend similar to that in PubMed. These data show that grey literature is now regarded as an important source of information in scholarly communication: it appears in meta-analyses of randomised controlled trials, especially when negative results are reported,⁶⁻⁸ and is cited more often owing to its online availability.

New responsibilities for authors and producers

The increasing acceptance of grey literature means that the responsibilities and challenges that confront the authors of grey literature and the organizations that publish it have changed⁹ and that grey literature is now expected to meet at least some basic editorial and production standards—this Cinderella needs to be properly attired to attend the ball! In most cases, the document design of grey literature is no longer so drab as to deserve the epithet.

An important change is that whereas grey literature in print was distributed to a specific audience, for example, only to technical or medical staff, on the internet it may be read by anyone, so that a different editorial approach is required.¹⁰

In this evolving scenario, ISO 5966 Presentation of scientific and technical reports¹¹ – which was very useful in the last century – no longer met the requirements of information technology and was withdrawn in 2000, although the basic philosophy that governed the structure of such reports and their parts continues to be valid.

It is important to ensure that a document has all its essential elements (authors, title, publication year, issuing organization) in place, shows a well-defined structure (title, abstract, sections, etc) and carries the associated metadata to make it easily readable online and retrievable by search engines.

The quality of open or white literature has always been associated with both content and presentation: content is subjected to the peer review process (which is now also under discussion for grey literature) and presentation follows specific and widely shared conventions. For example, most journal articles adopt the IMRaD structure (Introduction, Materials and methods, Results and Discussion) and a defined reference style, such as Vancouver.¹²

Recognizing the value of the Vancouver style for authors and editors of journal articles and the lack of freely available and updated guidelines for production of technical reports, we have pressed for similar recommendations for the production and dissemination of grey literature intended as a reference tool.² The Istituto Superiore di Sanità, Rome, Italy, presented a proposal to develop guidelines for producers of grey literature to the 7th International Conference on Grey Literature held in Nancy, France, in December 2005—hence the informal name “Nancy style”.

A small group of grey-literature producers, editors, librarians and information professionals agreed to collaborate in revising the document put forward by the Istituto Superiore di Sanità. Later, this “Nancy Group” became formally known as GLISC, the Grey Literature International Steering Committee.

“Nancy style”: guidelines for grey literature production

The Guidelines for the production of scientific and technical reports: how to write and distribute grey literature¹³ were created primarily to help grey-literature authors to write and distribute accurate, clear, easily accessible reports in different fields. The goal is to enable basic editorial and ethical principles to be applied in independent production of reports without formal editorial assistance.

The Guidelines are adapted from the well-known ICMJE “Uniform requirements”, now adopted by more than 1200 biomedical journals,¹² and also take into consideration the basic principles laid down in ISO 5966.¹¹

The Guidelines include ethical considerations, publishing and editorial issues, and advice on how to prepare and revise a report.

Ethical considerations are mainly based on the Vancouver style in the matter of who should be named as authors and contributors (definitions and responsibilities of authors and contributors), peer review, conflicts of interest, privacy and confidentiality. These considerations also apply to issuing organizations that act as editors of technical reports and are responsible for their quality and distribution. Organizations issuing grey literature should guarantee that the documents they produce are reliable and readable and, above all, comply with the aims and mission of the organization. These organizations should establish and maintain an editorial policy for grey literature that ensures internal coherence with their mission and respect for basic editorial principles, perhaps with the support of an internal editorial advisory board or service. Most academic and scientific institutions produce both grey literature and open literature, so it should not be difficult for them to take advantage of the editorial expertise available under the same roof.

Correct structure: the magic wand

A good structure promotes readability and usability and helps readers to retain information; furthermore, a well-organized document can be easily converted into XML to allow advanced search facilities for specific parts of the document, such as the introduction, conclusions and citations.

Editorially speaking, many strategies or conventions exist that are designed to add value to a document rich in content. In most cases, it is helpful to organize a report into sections and subsections (signalled either with numbers or with typographic style).

For these reasons, the Guidelines take into account, in particular, the technical aspects of both preparing and reviewing reports.

The core of the Guidelines is represented by the recommendations on document structure and its component parts. A synthesis of the Guidelines is included in the new edition of the *Science Editors' Handbook*.¹⁴

Availability and use of Guidelines

The Guidelines may be freely reproduced for educational, not-for-profit purposes. The GLISC website (www.glisc.info) offers the Guidelines in English as well as in French, German, Italian and Spanish. The Guidelines are also available on the EQUATOR Network website, the resource centre for good reporting of health research studies (<http://www.equator-network.org/resource-centre/library-of-health-research-reporting/reporting-guidelines/>).

Future challenges for grey literature

The main challenges for grey literature today are associated with online dissemination, copyright and training.

Open access

Free access via the internet, while adding value to the contents included in such documents, requires major efforts to ensure editorial quality (of both the structure and the content). Grey literature may, for example, deal with security issues or contain sensitive data that might be misused, which is why special care must be taken to make authors aware of the potential risks of spreading hazardous information.¹⁰ Careful editorial revision of the text or other review or peer review procedures is essential before circulating such data.

Grey-literature producers should develop and implement appropriate policies on archiving, error correction, version control, permanent access and preservation.

More efforts are now being made to include grey literature in repositories and new strategies are being considered for involving authors and issuing organizations and encouraging them to regularly deposit grey literature as soon as it is available, since no embargo period is supposed to be required for this kind of material. Deposition of grey literature in repositories would also ensure its permanent storage and thus solve the problem of its retrievability.

A welcome initiative is that of Europe PubMedCentral (<http://europepmc.org/>), which offers free access to biomedical literature resources. It is interested in exploring ways of collecting grey literature and providing access to

biological patents, clinical guidelines, doctoral theses and research reports, besides journal literature.

Many documents placed on websites become inaccessible shortly after publication, which is why grey-literature producers are encouraged to use stable or permanent sites for publishing their work. In any case, the publishers, when required, should amend a report, incorporate retractions, or make any other identifiable corrections instead of removing the report from the website. Preservation of electronic reports is essential for the historical record. Moreover, when a report is included in an institutional repository, information on the status of the document should be added (whether the document has been merely submitted or validated or revised, etc).

Copyright

Issuing organizations should make their position on copyright clear to authors and to others who are interested in using the editorial content of the documents.

Copyright laws differ among countries but copyright to an institutional report usually belongs to the issuing organization. This must be clearly identified in the report with the symbol ©, followed by the name of the issuing organization and the year of publication. A non-exclusive rights agreement offers an alternative to copyright, as this allows authors to use other means of publication and distribution for their work and provides a guarantee to the publishing body that the content is not in breach of any earlier copyright.

In the last ten years, one more way to manage copyright issues has become available and recommended, namely the use of Creative Commons (CC) licences. Such a licence is not an alternative to copyright, but enables copyright terms to be modified to match different needs regarding content use, re-use and sharing. Creative Commons is a non-profit organization providing free and easy-to-use copyright licences to share and use creative works, including grey literature, in a simple and standardized way.

Training

One effective strategy for improving the quality of grey literature is to empower authors, through specific training in editorial principles, to become qualified producers of documents. An example of empowering authors in grey literature production is provided by the NECOBELAC project (www.necobelac.eu). The project, funded by the European Commission within the 7th Framework Programme, carried out a three-year training activity (2010–2012) involving more than 1000 participants in 8 training courses for trainers and over 40 training replication sessions in Europe and Latin America.¹⁶ Grey literature was included as a topic in the training courses on scientific writing delivered as part of the project.

Final remarks

Grey literature is now recognized as an important source of information in every field of knowledge. Its online availability urges authors and issuing organizations to take on new responsibilities in the different stages of the production of such documents and be aware of the technical and ethical implications associated with its wide and

uncontrolled dissemination. The knowledge of the basic editorial standards and guidelines can play an important role in improving the editorial quality of grey literature.

References

- Alberani V, De Castro P. Grey literature from the York Seminar (UK) of 1978 to the year 2000. *INSPEL* 2001; 35:236-47. Available from: www.ifa.org/VII/d2/inspel/01-4alvi.pdf. (Accessed 2013 May 28).
- De Castro P, Salinetti S. "Uniform Requirements" for grey literature: proposal for the adoption of "Nancy style". *Publishing Research Quarterly* 2006;22(1):12-7.
- Cassell KA. Report on the 6th International Conference on Grey Literature, New York. *Collection Building*. 2005;24(2):70-1.
- Textrelease (www.textrelease.com).
- European Commission. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Towards better access to scientific information: boosting the benefits of public investments in research. Brussels: European Commission. 2012. (COM(2012) 401 final). Available at http://ec.europa.eu/research/science-society/document_library/pdf_06/era-communication-towards-better-access-to-scientific-information_en.pdf (Accessed 2013 June 19).
- McAuley L, Pham B, Tugwell P, Moher D. Does the inclusion of grey literature influence estimates of intervention effectiveness reported in meta-analyses? *The Lancet* 2000;356:1228-31.
- Hopewell S, McDonald S, Clarke MJ, Egger M. Grey literature in meta-analyses of randomized trials of health care interventions (review). The Cochrane Collaboration, John Wiley & Sons, Ltd. 2008.
- Franks H, Hardiker NR, McGrath M, McQuarrie C. Public health interventions and behaviour change: reviewing the grey literature. *Public Health*. 2012;126(1):12-7. doi: 10.1016/j.puhe.2011.09.023
- De Castro P, Salinetti S. Quality of grey literature in the open access era: privilege and responsibility. *Publishing Research Quarterly*. 2004;20(1):4-12.
- De Castro P, Napolitani F, Cheyne F. Small science journals: stay alert for potentially dangerous information. *European Science Editing*. 2006;32(1):11-3.
- International Organization for Standardization. ISO 5966. Presentation of scientific and technical reports. Geneva: ISO. 1982.
- International Committee of Medical Journal Editors. 2010. Uniform requirements for manuscripts submitted to biomedical journals. Available at http://www.icmje.org/urm_main.html. (Accessed 2013 May 28).
- Grey Literature International Steering Committee (GLISC). Guidelines for the production of scientific and technical reports: how to write and distribute grey literature. 2007. Available at www.glisc.info. (Accessed 2013 May 28).
- De Castro P, Salinetti S. 2013. Grey literature: challenges and responsibilities for authors and editors. In: Smart P, Maisonneuve H (Eds). *EASE Handbook*. 2013 (in press).
- European Association of Science Editors. *EASE guidelines for authors and translators of scientific articles to be published in English*. 2013. Available at <http://www.ease.org.uk>
- De Castro P for the NECOBELAC working group (Ed.). Training in scientific writing and open access publishing: the NECOBELAC project experience in Europe and Latin America. Roma: Istituto Superiore di Sanità. 2012. (Rapporti ISTISAN 12/26). Available at http://www.iss.it/binary/publ/cont/12_26_web.pdf (Accessed 2013 July 17).

Common errors to look out for in medical papers

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Abstract An inconsistent manuscript style and inappropriate presentation of the content hinder the legibility and comprehension, thus reducing the influence of a scientific work. In this essay, I describe common errors with style encountered in my editorial practice. These range from seemingly trivial errors with capitalization and italicization to complex mistakes involving the use of the apostrophe in eponymous terms. By addressing these inconsistencies, editors can ensure that papers are well presented and devoid of stylistic issues.

Keywords Medicine, writing, periodicals as topic, terminology as topic, eponyms.

The horizons of science and medicine expand daily, with the addition of new concepts and theories. An avid researcher or physician is pressed to keep up with the constant advances in their scientific fields. Since a published work is the most popular format for the dissemination of essential information, the intricacies of manuscript preparation are of great importance. An integral aspect of this is the style of writing.

Maintaining a consistent and clear style is vital for appropriately describing a researcher's work so that others may follow or build upon it. If a scientist has discovered a way to make pigs fly, but cannot organize the work into a clear and concise form, s/he might be the only one who can boast of a farm with flying pigs.

It is no surprise that many journals advocate the use of a consistent style to expedite the publication of novel and interesting research. As an editor of medical manuscripts, I have come across several types of inconsistencies that affect comprehension and presentation. In this essay, I describe a few of the common stylistic errors and hope to dispel some arguably inaccurate assumptions on the usage of certain terms.

In medical papers, the terms "male" and "female" are more appropriately used as adjectives than nouns. If you introduce a subject as a 20-year-old male, you may well be referring to a male horse, orangutan or any other 20-year-old male animal. Hence, it would be more appropriate to write "a 20-year-old man presented to our hospital."

Two terms that are used interchangeably but have distinct intended usage are "case" and "patient." A "patient" is an individual who has a particular condition and undergoes specific interventions. A "case" refers to the condition with its attendant circumstances. Consider the example "a case with tuberculosis presented to our clinic for treatment." Unless there is a new strain of tuberculosis that can now affect cabinets and cases (possibly a mutant fungal-bacterial lichen), the use of "patient" would be more appropriate in this "case."

A couple of terms used interchangeably include those relating to the imaging procedure and the resulting image or finding. One should clearly distinguish when using the term “radiography” or “radiogram.” *Radiography* can be performed, but only a *radiogram* would indicate or reveal the presence of a specific condition.

Non-native English speakers find the rules governing the use of articles particularly tough to negotiate in technical contexts. A common error that an editor may encounter in medical papers is the omission of articles before the names of body parts. The rule is simple and easy to follow: the definite article “the” should be included before the names of body parts such as the heart or the pancreas. However, when the names of body parts are provided in a list, an article may be provided only after the first name—such as the heart, lungs and brain. In the case of certain idioms, I recommend not applying this rule, or you will have constructions such as “don’t take this to ‘the’ heart” or “it is a gory film; she will never be able to ‘the’ stomach it.”

The presentation of drug names varies in the literature, particularly with regard to capitalisation. A useful rule is that the names of generic drugs should be in lower case, whereas brand names should be capitalised. Thus, olanzapine should be in lower case, but the brand name Zyprexa should be capitalised. This rule is similar to the regular English grammar guideline that proper nouns should be capitalised, whereas common nouns should be in lower case (*Big Ben* but a *small pen*).

The appropriate case for terms that have been derived from proper nouns is a controversial topic. Editors are unsure whether to capitalize “petri dish” and even the capitalisation of commonplace terms such as Gram stain or gram-positive bacteria is associated with much uncertainty. The popular rationale is that terms derived from proper nouns should be in lower case (the adjectival form), whereas the term should be capitalised when the proper noun itself is used. Thus, Gram stain is capitalised, but gram-positive bacteria is not. In a similar vein, terms such as graafian follicle and parkinsonian gait, ie adjectival derivatives, should be in lower case. A common error in capitalisation, unanimously accepted by the editing community as incorrect, is the use of upper case for western or northern blotting. Southern blotting is capitalised because the technique was discovered by the scientist Edward Southern (who, ironically, was born in *North West* England). Sadly, the research of Drs Northern and Western did not result in the creation of techniques named after them. Instead, the northern and western blots are merely based on the naming of the Southern blot and should therefore be in lower case.

Another hotly debated topic is the use of an apostrophe in eponymous terms. Several sources advocate that the apostrophe should be used if a disease is named after a patient, such as Mortimer’s disease, but omitted where a disease is named after a physician. At a conference held by the United States National Institutes of Health, the consistent use of an eponym without an apostrophe was advocated.¹ This suggestion is based on the argument that the physician did not have the disease—James Parkinson fortunately did not have Parkinson disease, but merely was

the first to publish on this condition. In a sense, the medical writing community appears to be moving toward the use of eponymous terms without an apostrophe, eg Down syndrome.

There are other common errors that are not necessarily specific to medicine. Some widely noted ones include:

Until recently, *data* was commonly used as a collective noun with a singular verb (*data is*). However, it is now considered a plural noun, with *datum* as the singular form. Thus, the correct use is “*data* of laboratory tests *are* analysed”.

Adding to incorrect subject-verb agreement is the usage of measurement units as plural nouns. Units of measure should be used as collective singular nouns, although this may seem slightly odd when the unit is spelt out. Thus, the correct use is “fifteen millilitres of buffer *is* added” rather than “fifteen millilitres of buffer *are* added”. However, to avoid this odd presentation, one can write “a volume of 15 mL *is* added”.

The use of “significant” should be avoided, except to indicate statistical significance. Instead, the use of “marked” or “remarkable” is advised. For example, “serum albumin concentration is *significantly* increased” should be corrected to “serum albumin concentration is *markedly* increased”.

The use of the present tense in tables and figures, while describing their contents, is correct. For example, a legend should be written as “the computed tomographic image *shows* a tumour (arrow)” instead of “the computed tomographic image *showed* a tumour (arrow).”

Sometimes, test results are described as unremarkable or normal. For example, “the biochemical tests are unremarkable.” Unless you are commenting on the unique or amazing characteristics of the tests themselves, it is advisable to specifically refer to the *findings* or *results* of the tests. The correct use is “the *results* of the biochemical tests were unremarkable.”

The use of an inconsistent style as well as awkward terminology occasionally biases the reader to the quality of the work and makes the article more cumbersome to read. It is essential that the manuscript content be conveyed in an appropriate manner. This is where the nuances and conventions of the English language play a crucial role. It is often said that English is a funny old language, but in the scientific publishing world, it is considered serious business, and no one’s laughing.

Competing interests None declared.

References

- [No authors listed]. Classification and nomenclature of morphological defects. *The Lancet* 1975;1(7905):513. doi: 10.1016/S0140-6736(75)92847-0

On the current presentation of scientific papers: 4. Spacing things out

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Authors are largely guilty of not providing accurate copy; many simply do not check their penultimate version with their co-authors, which quickly improves accuracy, and many clearly do not assiduously proof-read their final versions. A glance at some papers shows that they will be a nightmare to correct if they are not sent back to the authors to make the necessary, if fastidious, amendments. Here I will be talking mainly about spacing in the text of an article.

You might think there is not much to say about spacing, but as an editor I find it one of my most annoying jobs. This is because it is normally quicker to get a paper through to publication if corrections are done in the editorial office. Getting the authors to comply is like pulling teeth; a few corrections are made, many are missed and innumerable versions go back and forth before a definitive copy is achieved.

So what are the more common issues regarding spacing? A few examples can help illustrate them. I will show superfluous spaces as hash signs (#) hereafter:

"in a similar case(#Martin et al.#, 2011)"...instead of
"in a similar case (Martin et al., 2011)"

The lack of a space between the last letter of the sentence and the parenthesis occurs in many, for which I have no explanation. A space after the first parenthesis is often seen, as also between the full stop and comma. These are hardly noticeable, even trivial; so should we leave them as they are? I also wonder why some authors (mostly from the Far East) put double spaces after a sentence before starting a new one, or between words# in# the# same# sentence. Interestingly the first double space shows up as an error in Word (ie without the hash being used here), and when it is corrected, the next double space shows up, and so on. These errors are not that easy to spot when they are isolated cases, but they are usually repeated throughout a document. It would be arduous to correct them if we did not have a suitable tool ("Replace all") in Word; but how do you replace all double spaces by single spaces as it does not work so well in this case? There is another less frequent oddity, which is not using sensible letter spacing; sometimes the letters seem to be holding each other up, while in others they seem to have a body odour problem. The Help menu of Word will guide you through the business of letter spacing, less of a problem today than with older versions.

I have an issue with text references given as figures - which do you prefer [14,15,16,17,18], or [14,#15,#16,#17,#18]? And is this not better as [14-18], making spacing between the figures redundant? Another case where spaces might or might not be used is after units, on which there seems to be little consensus, eg 12cm or 12 cm; gm/L versus gm / L. A common case is with P values, where P<0.05 is better than P#<#0.05. It also seems odd that in about 70-80% of articles I edit, authors use the words "more than" and "less than",

ignoring the simple symbols < and >.

What about spaces between words when some of them today are written without any? Do we use *Key words* or *Keywords*. There are hundreds of similar examples, eg flow cytometry, down regulation, over expression. According to Wikipedia, "*asynalephaor (synaloephais) the merging of two syllables into one, especially when it causes two words to be pronounced as one.*" [In American English, many more synalephae are creeping in.] Is there any consistency among editors, or indeed the rest of the literary world, on which to choose, and does it matter? Clearly Wikipedia itself is inconsistent within its own entry:

"Keyword (linguistics)

In corpus linguistics a key word is a word which occurs in a text more often than ... Key words are..."

Spaces are found unnecessarily after (and sometimes before) superscripts (#²). They may be inserted after numbering of a heading, a subsection, a figure or table (eg 2.#1#Chemicals). Long single (!) spaces occur when authors end a paragraph with only a few words on the last line and forget to hit "Return". Spaces are difficult to control between lines, a good example being insertion of a formula without encroaching on the lines already written. And what spacing should authors use before and after each line? They can choose single spacing, 1.5 spacing, double spacing and so on. But the distance can also be controlled by using the *Page layout* submenu to set the distance before and/or after a particular line of writing. These are problems that authors probably assume will be sorted out by the editors of a journal or the publishing staff, just as the white space around a figure is not a matter that the average author considers. Should authors be given explicit instructions on these matters? Some journals can be very fastidious, eg *Biochemical Journal*, but their "Instructions to Authors" amounts to some 40-50 pages.

In some instances spacing is never a problem, one being in email addresses. If everyone accepts this convention, it is not impossible for authors to adapt to situations where spaces ought to be standardised. One example where spacing varies, ie from no spacing to regular spacing, is in the presentation of references. Some journals prefer maximum compaction (eg *Neuro-Oncology*2012;14(6):701-711), whereas others use spaces between the different components.

To recapitulate, maybe this diatribe about the problem of spacing is vacuous; perhaps it is not worth the time or effort to conform to particular conventions (if these were ever to come into existence) because the "errors" considered above seldom if ever change the meaning of what has been written. But I am sure someone will have an example where the omission of a space or the insertion of an unnecessary space has created a problem.

Reports of meetings

The Third World Conference on Research Integrity: at EASE with publication ethics

Montréal, Canada, 5-8 May 2013

The conferences on research integrity have grown from a predominantly European meeting in Lisbon in 2007 to a truly global think tank about promoting and strengthening the standards for integrity in all aspects of research work at its conferences in Singapore in 2010 and now in Montréal in 2013.

The Conference in Montreal was a truly exciting event that covered high-level research with practical aspects of research integrity in daily work. It was fascinating to take part in the discussions of experts from different research fields and disciplines, and from all over the world. It is not surprising that the global nature of the conference in Montreal resulted in a draft of the conference Statement on Research Integrity in Cross-Boundary Research Collaborations. The Statement is available at http://wcri2013.org/Montreal_Statement_e.shtml (currently open to discussion). It addresses the basic principles and responsibilities of individual and institutional partners in international research collaborations – such collaborations often span different cultures, regulatory and legal systems, as well as education, research, and funding structures.

As editors, we should look for the outcome of one of the four Focus Track Sessions, entitled “How should institutions and journals work together in cases of suspected misconduct”. The Session was led by Dr Sabine Kleinert from The Lancet, former Board member of Committee on Publication Ethics (COPE), and Dr Elizabeth Wager, former COPE Chair. The sessions were lively and creative because all stakeholders in publication integrity participated in the discussions, from editors and publishers to research integrity officers and managers at institutions and funding organisations. We are currently working on a joint document that will define the challenges to stakeholders in research and publication integrity cases.

EASE contribution to the Conference, and particularly the Focus Track on publication integrity was important and timely – with the poster on EASE Publication Ethics Checklist. The checklist was drafted by Sylwia Ufnalska, EASE Council Member, and is a part of the EASE Guidelines for Authors and Translators of Scientific Articles to be Published in English, developed by a group of EASE members, which was headed by Sylwia Ufnalska (the guidelines are available at <http://www.ease.org.uk/publications/author-guidelines>).

The EASE Checklist attracted enormous attention, particularly of research integrity officers at universities and research institutions, who recognised its value as a tool to deter publication misconduct and promote responsible conduct in publishing.

The next World Conference on Research Integrity is scheduled to be held in Brazil, in 2015. Surely, we'll witness greater proliferation of studies on research integrity so that we can provide a solid evidence base for informed policy decisions in this area. I hope EASE members will join their efforts and collaborate to advance research integrity.

Proudly presenting EASE at the Third World Conference of Research Integrity – explaining EASE Publication Ethics Checklist to a colleague from Canada.



Ana Marušić

Vice President of EASE; Honorary Professor, University of Edinburgh, UK;

Department of Research in Biomedicine and Health, University of Split School of Medicine, Split, Croatia;

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Annual Meeting of the Council of Science Editors

Montréal, Canada, 3-6 May 2013

I had the privilege of attending the Council of Science Editors (CSE) annual meeting, which was held on 3–6 May 2013 in Montreal, Quebec, Canada. The meeting theme – Communicate Science Effectively: The world depends on it – was well thought out and emphasized effective communication as the need of the hour in the current scenario of global academic publishing.

The meeting was a large affair attended by about 350 professionals from various realms of scholarly communication – journal editors, manuscript editors, publishers, publishing consultants, academic scholars, etc. Keynote speaker, Dr. Jeffery Drazen, Editor-in Chief of the New England Journal of Medicine (NEJM), delivered a captivating lecture titled “Two Hundred Years of Communicating the Medical News.” The talk described, with the help of interesting facts and images, how the style of medical reports has evolved over the 200 years of NEJM’s existence. For example, did you know that the first known randomization in a clinical trial was done by the flip of a coin?

In the second plenary address, award-winning New York Times blogger Andrew Revkin spoke about “The New Science Communication Climate,” highlighting how new online tools like blogs and social media can help get science out to the public faster. Some of the recommendations made were that research papers provide a non-technical version of the abstract for public consumption and that scientists make better use of Twitter, which allows effective filtering of unessential information. Revkin also discussed the perils of the media overstating research outcomes.

A total of 32 breakout sessions, held across two days, spanned a wide range of topics, including editorial processes, citation metrics, new developments in the industry, reader access, social media, author-editor relationships, outsourcing, manuscript quality, and publication ethics. Some of the sessions I attended introduced new standards in publishing, such as ORCID and FundRef. I also learned that the ICMJE has a new, user-friendly conflict-of-interest form that covers details that were not captured as clearly in the earlier form. In another session, Barbara Gastel, Professor, Texas A&M University, spoke about how authors from newly industrialized and non-English-speaking countries can be empowered through projects like AuthorAid, which provide intensive training in manuscript writing for journal submission. Darren Taichman, Deputy Editor, Annals of Internal Medicine, in a session on recruiting quality articles, suggested that journals should treat authors like customers and make them feel valued. He also recommended that rejection notices should clearly mention reasons for rejection and what the editorial board is looking for.

Another author-focused session discussed challenges East Asian authors face and provided strong recommendations to bridge gaps between them and international journal editors. Here, Phillipa Benson, President & Owner, PJB Consulting, described the academic scenario in China: for

example, Chinese scientists receive no training in scientific writing at the graduate level, and most English teachers are themselves non-native English speakers. This was followed by Donald Samulack, President, Cactus Communications, presenting the results of a survey that highlighted gaps between author and journal editor perspectives. For example, authors think they understand plagiarism well, but journal editors find plagiarism a common problem in submissions. Finally, Boyana Konforti, Editor, Cell Reports, tied all this information together with examples of best practices that journals can adopt to make the publication process easier for authors. Some of the recommendations included translating journal guidelines into local languages and conducting usability tests on them, making sample papers easily available, sharing video tutorials of the submission process, and specifying clear next steps in peer review reports.

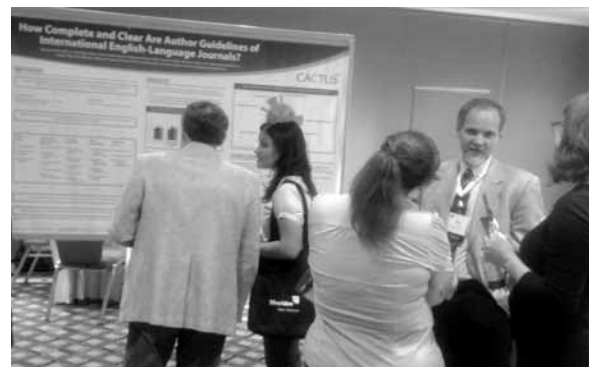
The sessions were interspersed with networking breaks in the exhibit hall. Exhibitors included publishers like Allen Press and BioMed Central; editorial process management services like Thomson Reuters and The Sheridan Group; and author editorial services like Editage/Cactus Communications and Write Science Right. There was also a poster presentation session, with four posters on improving editorial processes eligible for the Best Poster Award. The winning poster, authored by Remya Nambiar and Priyanka Tilak, Cactus Communications, was called “How complete and clear are author guidelines of international English-language journals?” The authors had evaluated author guidelines of various journals and found that most do not provide all the information needed as clearly as possible. Their results emphasized the need for better standardization and regular review of author guidelines.

Overall, I found the meeting very informative, with a strong theme running through all the parallel activities. Adequate free time was available for networking and visiting exhibitor booths. I hope to make it to next year’s meeting as well—2–5 May 2014 in San Antonio, Texas.

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Annual Meeting of the Society for Scholarly Publishing

San Francisco, 5-8 June 2013

The 35th Annual Meeting of the Society for Scholarly Publishing (SSP), held from June 5 to 7, 2013, in San Francisco, was an interesting and rewarding experience. With the theme “Surviving (and Thriving!) in Our Multi-Access World: Navigating the New Publishing Paradigm,” it provided insights on a broad range of issues in scholarly publishing, from Open Access to Massive Online Open Courses (MOOCs). Remarkably, the meeting saw over 800 attendees, of diverse backgrounds: journal editors, librarians, publishers, etc. It also had quite an international flavor, with participants and speakers from Turkey, Japan, Egypt, Brazil, and India, in addition to the US. The exhibitors too were a diverse group: HighWire, Microsoft Research, Thomson Reuters, the British Library, etc.

The meeting began with a warm “welcome to the Hotel California” by outgoing SSP president Carol Anne Meyer, followed by the opening keynote address titled “Some Reasons for Optimism” from Tim O’Reilly (Founder and CEO, O’Reilly Media Inc.). He shed light on how technology, as well as data, is changing the face of publishing (from the old “filter then publish” to the new “publish then filter” paradigm). Using examples such as the Square and Square Reader applications, he showed how (1) technology needs to go beyond the level of a single device, (2) sensors can be used to transform the users’ experience, and (3) data make it possible to deliver new services. He recommended that managers invest in technologies that make things easier for the user. He ended by explaining how systems that overhaul the workflow will affect scholarly publishing.

Another interesting session was the plenary one on MOOCs, moderated by David Smith (CABI). Dan McFarland (Stanford University) shared his experiences in conducting MOOCs, discussing their impact on students, universities, and pedagogical practices. Mimi Calter (Stanford University Libraries) made an interesting point that MOOCs conducted by high-profile professors or universities can be inappropriately used by small or community colleges. Franny Lee (SIPX Inc.) discussed the MOOC content behaviors observed at her organization, dwelling on the opportunities and advantages of MOOCs, especially the data generated from them. Laura Leichum (Georgetown University Press) discussed the new opportunities MOOCs provide for publishers and issues regarding their sustainability. She also noted copyright concerns related to MOOCs, particularly the question of whether MOOC content belongs to the professor, platform provider (eg Coursera), or the institution. The panel also responded to audience questions on concerns such as the fact that professors who conduct MOOCs are not paid, the future of MOOCs in the face of their high dropout rate, and students’ perspectives on MOOCs.

Another plenary session was conducted on global policy and research trends. Some interesting graphics were presented by the moderator Toby Green (Organisation for Economic Co-operation and Development) on research spending, international collaboration, entry rate into

university-level education, etc., across countries. This led to questions on government funding for research as well as a lively discussion on the impact of China’s economy on the academic arena in Europe, Latin America, the Middle East, and Japan. Some telling points were made by the panelists: (1) Tarek El-Elaimy, American University in Cairo Press, Egypt; (2) Mikiko Tanifuji, National Institute for Materials Science, Japan; (3) Simon Bell, British Library, UK; and (4) Abel Packer, Scientific Electronic Library (SciELO), Brazil. An important insight I gained from the discussion was that submissions from China to Brazil-based journals are on the rise, and since many of these journals are Gold Open Access ones, this trend could have financial implications. Additionally, Mikiko Tanifuji discussed the experiences of her institution, which has many Chinese visiting researchers. This session also touched upon the impact of digital textbooks and study materials.

In between these sessions were around 25 concurrent ones on various aspects of scholarly publishing – the challenges and opportunities of open access publishing, the freemium access model, alternative impact metrics, new technologies to facilitate the peer review process, etc. Another highlight of the meeting was the Round Table discussion, in which participants freely discussed various topics over lunch, for example, digital libraries, remixing content, growing one’s global presence, and integrating ORCID. The meeting ended with some “servings” from the SSP blog Scholarly Kitchen, a session in which authors of Scholarly Kitchen posts shared their views on the most prominent topics discussed on the blog in the previous year, including how PubMed Central has led to a drop in traffic at journal websites.

I found a strong theme running through this well-organized meeting: the need to embrace various technology-driven changes in scholarly publishing as well as the benefits and excitement that can accompany the change process. Indeed, the new publishing paradigm was considered more of an opportunity than a threat to the scholarly publishing industry. I’m looking forward to the next meeting, to be held in May 2014 in Boston, Massachusetts.

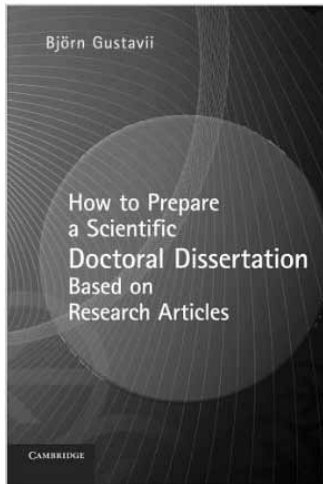
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Book reviews

How to Prepare a Scientific Doctoral Dissertation Based on Research Articles by Björn Gustavii. Cambridge University Press 2012. 101 pages, 14.99 GBP, ISBN 978-1-107-66904-8 (Paperback)



This book is based on the author's survey of a couple of thousand dissertations written in article-based format. Such compilation theses are becoming increasingly common, especially in the physical and biological sciences, and will eventually replace the traditional monograph altogether. Two types of compilation works are discussed: the so-called Scandinavian model – an overall summary followed

by research papers bound together in a single volume – and the more commonly used sandwich format, in which articles appear as chapters between the general introduction and the general discussion. The sandwich model has the advantage that the chapters are standardised to fit the thesis, which makes the compilation look like a book.

This book deals with diverse aspects of the thesis manuscript that are often dealt with at the very last moment, viz., the front cover illustration, the composition of the title, the build-up of the abstract, and the risky use of quotations of famous people. Other chapters in this guide deal with abbreviations, credits, the list of publications, the contributors, the popularised summary (the summary of the thesis for the non-specialist), acknowledgments, the general introduction, the general discussion, and the reprint permissions and copyrights.

The author puts strong emphasis on the function of graphics in scientific communication, ie, not only on the graphical quality of diagrams, but also on the role of appropriate pictures and images in places such as title page and divider pages at the beginning of a chapter or as part of the thesis book. The book itself is a vivid example of this principle: the 85 pages of text are adorned with 40 graphical illustrations, and good as well as bad examples of graphs are given.

One of the most important chapters in the book is about the contributors, ie the co-authors that contributed to each individual chapter. Many a PhD student discovers too late that a multi-authored compilation work should also offer a summary of exactly what the author of the thesis has contributed in terms of research and analysis, but also in terms of the writing of each chapter.

This book is intended in the first place for the PhD candidate because it shows how to prepare a thesis in such a format – although much of the advice on writing a thesis can be directly applied to the writing of the individual research papers that are included in the compilation. This guide should also be within reach of every supervisor, and certainly be available in every academic library. In particular Appendix A, written for the authorities at those universities contemplating introducing article-based theses, is a useful summary dealing with the number and quality of papers required, the review status of the papers and the question of authorship.

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Eloquent Science: A Practical Guide to Becoming a Better Writer, Speaker, & Atmospheric Scientist, by David M. Schultz, AMS Books, 2009. C.£30.00. ISBN 978-1878220912 (Paperback)

Eloquent Science is a fairly hefty book for a very niche market. Originating from a short course, the stated aim of the book is to “provide a practical guide to becoming a better writer, speaker and atmospheric scientist”. I am not sure that anyone will become a better atmospheric scientist from reading the book, but it does mean that all advice about writing and speaking is tailored for this particular market. The book provides chapters on how to write articles, how to select effective words and phrases, and how to prepare good figures and tables. It also considers authorship, ethics and guidance for writing in English as a second language. With regard to presentations it provides (in 7 chapters) general guides to constructing and delivering oral presentations. The content is comprehensive and helpful, and the coverage good. The consideration of authorship, for example, is well-balanced, although the author does ignore the “credit

rating” that goes with being first or corresponding author in several countries and explains the increasing requests for joint-first-authorship. The author's words are interspersed with “ask the expert” columns providing advice from specialists, and these provide a welcome change from the main text. To supplement this detailed book there is also a website (www.eloquentscience.com) which provides a blog feed, commentary and additional resources for any authors in this and other scientific areas. In summary, this is a useful book, but very much aimed at a particular market – which will be great for them, but not so good for the rest of us.

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EASE-Forum Digest: March to June 2013

You can join the forum by sending the one-line message "subscribe ease-forum" (without the quotation marks) to majordomo@helsinki.fi. Send in plain text, not HTML. Details at www.ease.org.uk/node/589.

Definition of editor

Aleksandra Golebiowska asked how she should interpret a statement that somebody edits manuscripts but does not copyedit them. From the long discussion that followed, it was clear that a copyeditor corrects language errors, ranging from only minor errors, eg commas in the wrong place, to substantive editing, which can involve rewriting the text. How much copyediting is done will depend on the terms of the copyeditor's assignment. Joy Bourrough thought a continuum of editing was a useful concept for language editing and gave examples from her own research, but for editing of non-native English texts, the editorial approaches and actions required must be drawn from the entire editing continuum and also from translation practice. Elisabeth Heseltine highlighted the WHO guidelines, which define levels of editing by native English editors of documents written by non-native English speakers but are perhaps not so wide ranging as Joy had meant.

What an editor does was not clear. Paul Neate pointed out there are considerable differences in individual perceptions of what constitutes editing and copyediting. For him, 'an editor' can describe a person who only deals with substantive editing delivering a manuscript that then needed to be cleaned up by a copyeditor. Most of the forum, however, thought an editor makes management decisions about the journal and which papers to accept. Angela Turner believed that what an editor as opposed to a copyeditor does depends on the journal's requirements: some editors do little more than make the decisions while others comment extensively on various aspects of the manuscript including grammar. Kersti Wagstaff commented that selecting papers is not editing, but it is something done by an editor. The noun 'editor' has moved away from the verb 'edit' in a way that the noun 'copyeditor' has not.

Perhaps, Valerie Matarese observed, trying to make a clear distinction between activities that, by their nature, overlap is unreasonable as you are comparing copyediting with an otherwise not specified 'editing'. For Chris Sterken, the difference between the two types of editor was that copyediting can be done by someone who does not necessarily understand the scientific meaning of the text, but an editor needs to know the science. A copyeditor could not understand his discipline of (astro)physics where the concepts are so specific that even editors have to rely on reviewers. Mary Ellen Kerans, who is a linguist, did not entirely agree as she would need to be able to understand something about the content before she could edit it. Marge Berer had experienced with her own work's distortion by a copyeditor who didn't know her subject and thought they were only changing the commas. This was why Springer

preferred linguists, whom you can train to become (fairly) fluent in the language of science, whereas it is hard to train someone into sensitivity to commas if they are not sensitive to language in the first place.

Valerie Matarese also believed the copyeditor's role might be different between a journal based in the US with an American author base and an English language journal produced in Italy where the editorial board, reviewers and authors are entirely non-anglophone, as discussed in the book *Supporting Research Writing: Roles and challenges in multilingual settings*, edited by Valerie. Liz Wager added that she was currently working on a multi-author book where her main function was project management involving chasing authors, highlighting overlap in topics and ensuring that the writing style followed an agreed template, but ultimately a copyeditor would correct language errors. Yateen Joshi posted a link to a post he had put on a blog titled "Substantive editing and copyediting compared" <http://blog.editage.com/substantive-editing-and-copyediting-compared>.

Another confusion, raised by Liz Wager, is what is meant by 'proofreading'. This is commonly used on the continent for what for her is copyediting. Kersti thought English speakers unfamiliar with the publishing process use 'proofread' in the same way, and Joy gave an example of its use by translators to mean revising (see <http://www.trans-k.co.uk/glossary.html>).

'Elaborate' and establishing word usage

Poles love the word 'elaborate'. Aleksandra tries to make them use 'develop' instead but she wondered if 'developed' would be correct in "A harmonised standard is a European standard elaborated on the basis of a request from the European Commission to a recognised European Standards Organisation to develop a European standard that provides solutions for compliance with a legal provision."

Discussion revealed that 'elaborate' is a false cognate for speakers of all Latinate languages and tends to be transferred into English where 'develop' would be used by an English native speaker. In a manuscript Angela had received, the Indian authors referred to 'elaborated tusks of elephants'. Probably they had meant 'well-developed' or 'long tusks'. Carol Norris confirmed that speakers of Finnish, a non-IndoEuropean language, would never use 'elaborate' as a verb.

David FitzSimons advised against 'develop' because it is an overused word. Even so, Kersti considered 'develop' had the advantage of being international plain English. Peter Thorpe favoured 'elaborate' for Aleksandra's sentence. He had googled 'elaborate on the basis of' and got 1.9 million hits. Kersti got 24 million for 'developed on the basis' but cautioned that in such comparative testing account should be taken of the context and the authors' origins. Sylwia Ufnalska pointed out that in reality Google found less than 500 pages for Peter's search and suggested Google Ngram Viewer as a better tool for comparing word usage.

Neither 'developed' nor 'elaborate' could make such a

convoluted sentence comprehensible in Ed Hull's view. The authors needed to explain, for example, what was meant by "a solution for compliance with a legal provision". Mary Ellen agreed but was surprised at editors' reluctance to use 'elaborate' as a verb. From her searches of American (COCA) and British (BNC) corpora, this use is well established. In answer to David's comment that although the number of hits on Google or different corpora indicates usage it is not a measure of quality, she gave the advantages of a concordance: the provenance of each hit could be seen at a glance and unlike Google, duplicates are not shown.

This discussion led Karen Shashok to contemplate the less than perfect quality of documents written for big international institutions. They are often written by non-native users of English who do their best, but the text is not edited for language and tends to be tainted with bureaucratise, which is anyway preferred by the powers that be in the organisations. The text may be more understandable for the end users in the particular country but due to globalization such incorrect text is quickly propagated, leaving language editors and translators helpless. David added that 'negotiated text', which language experts are not allowed to change, could be ambiguous and meaningless, and was another problem.

Explanation of 'Temporary Removal' and definitive versions of an article

Karen asked if articles labelled as 'Temporary Removal' by Elsevier should be cited. She was confused because the 'note to users' on such papers appeared to encourage their citation. Angela explained that the publishing editor at Elsevier for her journal had told her that normally a problematic paper would be withdrawn and should not be cited. The 'Temporary Removal' label was used if the paper had unresolved legal issues and likewise should not be cited as it may not be reinstated. The 'note to users' appeared on all papers still at the online publication stage. It gives information on the stage of publication and points out the lack of volume and page numbers. It was not intended to imply that it is appropriate to cite the paper. Karen suggested that Elsevier modified the 'note to users' on temporarily removed articles to avoid giving the impression that they could be cited, and changed 'Temporary Removal' to 'Temporarily Withdrawn', which would be clearer. Angela could envisage that 'withdrawn' would raise objections from lawyers for the authors as an implication that the authors had done something wrong.

Karen also pointed to the confusion that might arise if a reader downloaded the in-press version, and the publisher subsequently temporarily removed or withdrew the article. The reader would not be aware of the change in status. Angela accepted Karen's point about which is the definitive version of an article and whether an article published online could be altered. She wrote "This problem doesn't just arise with withdrawals and temporary removals. Some papers have errata or corrections printed at a later date too. On Elsevier's ScienceDirect these would be linked with the original article so anyone looking at the main article will see a link to the erratum, but many readers may see and

download the article before the erratum is published. Many researchers will have email alerts from publishers, so may hear of an erratum about a particular paper, but not all will. I have been told by Elsevier editors before that the article published online is the definitive version and they would not change it. The only way for an author to change anything is by writing an erratum, even if the author realizes there is an error during the period that the article is only available online (ie before publication in the printed journal). That would presumably apply to a temporarily removed article that was reinstated; it would be reinstated in its original form but with an erratum if appropriate."

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Updated edition of EASE Guidelines

The 2013 edition of *EASE Guidelines for Authors and Translators of Scientific Articles to be Published in English* is freely available in 21 languages on our website (<http://www.ease.org.uk/publications/author-guidelines>). It contains a completely revised version of the Appendix: Ethics (page 10), which is a standardised publication ethics checklist, presented at the 3rd World Conference on Research Integrity in Montreal in May 2013. This one-page checklist can be downloaded from the website as a separate file and if used routinely as part of the submission procedure, it might help to prevent scientific misconduct. It informs or reminds authors about major ethical issues relevant to scientific publications.

The updated *EASE Guidelines* have been changed only slightly and changes have been made in accordance with the recent San Francisco Declaration on Research Assessment (DORA), signed by EASE, which recommends the citation of primary literature in favour of reviews, in order to give credit to the group(s) who first reported a finding (see <http://am.ascb.org/dora/>).



This Site I Like

The Research Collaboratory for Structural Bioinformatics website: proteins and nucleic acids visualisation for the curious

<http://www.rcsb.org>

“We are now in a position to study the tertiary structure of a single myoglobin molecule separated from its neighbours” wrote John Kendrew in his seminal paper in *Nature* in 1958 “A Three-Dimensional Model of the Myoglobin Molecule Obtained by X-ray Analysis”. His research team discovered the structure of the protein and visualised it using a manual model. A few years later, Kendrew and Perutz received the Nobel Prize for this discovery. Ten years later, Richard E. Dickerson developed a model for predicting the number of protein structures described annually. According to Dickerson’s model, the number of soluble proteins would be 12,066 by 2001. It was a great prediction since the actual figure reached 12,123. It was also clear that the number of protein structures would soon become hard, if not impossible, to handle.

At the end of the 1960s, another great achievement was reported, as eloquently presented by Edgar F. Meyer in his review, “The first years of the Protein Data Bank”. Thanks to the development of software and hardware, and particularly with support of the Brookhaven Raster Display (BRAD), Meyer working with programmers and biologists generated the first 3D images of protein structures. Using Meyer’s approach, the lines of codes that represented the coordinates of protein were handled with computers in a way to help the user surf through the data. To advance this approach, the software SEARCH was developed, which employed a dictionary of protein residues, atom names and molecular properties, facilitating automatic data processing. That was the beginning of the Protein Data Bank, which is a database currently containing information on around 90,000 protein structures.

The Research Collaboratory for Structural Bioinformatics Protein Data Bank (RCSB PDB). Since those early years, the Protein Data Bank has become the largest repository for protein and nucleic acid structures. The bank contains

a total of 87,067 items, with 8,969 of them added only in 2012. The initial collection of codes has evolved into a sophisticated website that allows the user to register a new structure, to search through the database using protein code (PDB code), ligand code, or author name. Once a query is typed in, the user is directed to a page with lots of information about the protein structure and function, with the possibility of obtaining and downloading images.

The RCSB PDB website has become very popular, with the PDB page being accessed by around 140,000 unique visitors monthly from 140 different countries. The website users are students, educators, science writers, editors and professionals from diverse backgrounds, particularly biologists, specialists in bioinformatics, computational chemistry and many other allied fields.

Science editors can benefit from the RCSB PDB website by improving their knowledge on biological topics. The visualisation of biomolecules and retrieval of information on their properties can be especially helpful for editors verifying facts and checking images in manuscripts submitted to biomedical and other journals.

Recently, the RCSB website released a free app for iPhone/iPod/iPad. A version for the Android platform is under development. Perhaps the most impressive feature of the app is the molecule viewer, NDKMol, which allows the user to navigate through the 3D representation of the macromolecule. And all this is on a small screen of Smartphone or Tablet! It is a fantastic tool for researchers, editors and other curious users who want to explore the beauty of the world of molecules.

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The screenshot displays the RCSB PDB website interface. At the top, it features the RCSB PDB logo and navigation tabs for 'Everything', 'Author', 'Macromolecule', 'Sequence', and 'Ligand'. A search bar is present with a search icon and a search history link. Below the search bar, there are several featured sections: 'Biological Macromolecular Resource' with a 'Full Description' link, 'Learn: Featured Molecules' with a 'Hide' button, 'Structural View of Biology' with a 'List View of Archive By: Title | Date | Category' option, and 'Molecule of the Month Dermcidin' with a brief description: 'Bacteria are a constant threat, so our bodies have many defenses to protect us from infection. One of our first lines of defense is a collection of small peptides, termed antimicrobial peptides, that are...'. On the right side, there is a 'RCSB PDB News' section with a 'Hide' button and a 'Weekly | Quarterly | Yearly' filter. Below the news section, there is a 'Create High Resolution Images' section with a date '2013-06-18' and a small image of a protein structure.

My Life as an Editor - Bob Campbell



By the time you read this, Bob Campbell, Senior Publisher at Wiley, will have stepped down. Bob has had an exceptional career in publishing spanning more than four decades. Here he shares some of his experiences, insights, highs and lows of a life well spent in publishing.

Bob, can you tell us a little about your formative years?

I was brought up in an isolated old farmhouse north of Oxford; electricity reached us when I was 13. As a boy, I spent most of my time outside stalking animals or fishing, and this didn't change much when I went to Marlborough College. After leaving secondary education, I worked for a brief spell as a junior technician in the cardiology department at Oxford University, a job that included being the anaesthetist for vivisections. Subsequently, I worked on a farm in the Dordogne, France and gained a wide experience of ancient tractors, building (converting barns to houses) and wine.

When I went to Aberdeen University, the zoology department was fairly relaxed about me spending most of my time fishing, although the Professor (Vero Wynne-Edwards) caught up with me some years later: "As I put up with you for four years you should now publish my book." We were happy to.

My taking a degree in what was essentially ecology and ethology, then acquiring friends in these subjects during my time living in Oxford, probably led, in later years, to Blackwell building up a successful programme in books and journals in these subjects. To have this picked up by the British Ecological Society, which made me an honorary member in 2011, was one of the high points of my publishing career.

Unlike many in your line of work, you entered the world of publishing at the beginning of your career. Was this a deliberate career strategy or something more serendipitous?

When I graduated in 1968, Frances and I were planning our wedding, so finding a job quickly was a priority. The options at this point were a horse racing column or a post in publishing. Fortunately for all concerned, Per Saugman at Blackwell Scientific Publications (BSP) hired me, probably because my father was a well-known ornithologist rather than because of any aptitude I displayed at interview. At that time medicine was BSP's great strength, and Per tasked me with building up a book list outside the subject of medicine. Although journals seemed more promising, I persisted with the book list for years, as BSP considered itself to be primarily a book publisher. On the positive side, I did a great deal of travelling to universities and research institutes, which enabled me to build up a network that would become so valuable during my time as a journal publisher.

What took you from books to journals?

Looking back, I should have switched to journal publishing earlier. Although I launched my first two journals in 1971 - *Freshwater Biology* and the *Journal of Biogeography* - and started to work more with societies, journals were a sideline throughout the 1970s, along with helping to manage a couple of start-ups (Micromedia and Oxford Microform Publications) which we sold off at a considerable gain before the technology was left behind. I co-authored a book about microform publishing with Peter Ashby and a book on coastal birds with my father, both of which sold better than my later works on journal publishing.

Although in the 1970s there was the usual doom and gloom about the future of journals and the likely breakdown of the peer review system, the negativity increased with the realization in the early 1980s that new technology could change everything. I felt that the journal would not be replaced but would evolve with the technology. Thus our strategy was to expand our journals programme so that when change occurred we would have sufficient titles to get us a place at the "top table". By this time we had a great young team plus a more senior colleague, Keith Bowker, who converted from a traditional book sales director to being one of the most effective journals directors in the industry, especially when it came to looking after learned societies.

What prompted your move into management?

When I succeeded Per Saugman as Managing Director in 1987 I had little conventional senior management experience - I had not even produced an annual budget. Nigel Blackwell said in November 1987 that it would be nice to see a budget for the next year, so Jon Conibear and I knocked one out on the bonnet of our car on the bank of the Tweed; we agreed no fishing until the task was completed. The budget proved to be as accurate as any much more sophisticated later efforts.

What was it like being "the boss"?

Running Blackwell Science Ltd (BSL) (we changed the name from BSP) from 1987 to 2000 was a huge job. But, just as I was lifted by colleagues in our drive for growth through journals in the 1980s, in taking BSL global to become one of the major STM publishing companies by the end of the 1990s I was supported by a tremendous team and of course the relationships with well-run partner societies. After merging BSL with Blackwell Publishers to form Blackwell Publishing (BPL) in 2001, we had the stimulus of working with new colleagues. I learnt a lot from them, in particular from René Olivieri - as he pointed out we offered a near 24-hour management service as I would work until 2 am and René would start at 5 am.

You have been very involved with the newer innovations in publishing - how do you see the evolution of electronic publishing and the challenges that it brings?

Much depends on the durability of pre-publication peer review and the other value added by publishers. We seem to be

evolving towards a mix of the established model for scholarly communication, variants from this model and complementary social media, all made more effective by search engines, mining and enhancements to peer-reviewed content.

The main drivers for change are the research funders, who have only become part of scholarly publishing in the last ten years. When we put an idea to funders in the 1990s they said we were mad even to consider that they might pay for anything other than research. As they now see dissemination and impact as part of their mission and governments continue to invest in R & D, we are entering a new era. The challenge is to evolve a more complex scholarly communication system with our traditional partners (researchers/authors, teachers, libraries and societies) and funders.

Can you tell us a little about your involvement with the UK Finch Group?

After the sale of BPL to Wiley, I landed up with a different role as Senior Publisher. It's been great fun. I remained involved in publishing, particularly with learned societies, but took on "government affairs" with Pat Kelly. We worked closely with the trade associations representing academic publishing in policy debates in Brussels and in the UK. When the Finch Group was first being discussed within the UK Department of Business, Innovation and Skills, we argued for representation from learned societies as an important but overlooked element in scholarly communication. This was

supported by HEFCE and other organizations and I feel we ended up with a fair balance of interests.

Our brief was to widen access to journals. The important initial assumption was that we are looking at a mixed economy. We made it clear that a considerable investment would be required to move ahead of the rest of the world in widening access. The UK Government has made a bold policy decision in deciding to provide extra funding to universities to pay Article Publication Charges, but it has put pressure on universities by only partially subsidizing the cost of Gold ("author pays") open access. After an initial rough patch, I feel the implementation of such a policy has brought research funders and publishers closer together.

If you had not gone into the publishing world, what do you think you would have been doing these last 40 years?

It is difficult to imagine anything else so stimulating, mixing working on practical issues with the excitement of evolving technology and ideas. When I had an X-ray of my right hand recently after an accident, the doctor said he was surprised to find I appeared to be an office worker when my bones indicated a manual worker. I do prefer to be working outside whenever possible and have built up a farm, which has included planting woods and hedges and has enabled us to win various conservation grants. Perhaps a career in conservation might have been possible but I doubt that I would have done so well.

Correspondence

Criteria for selecting members of editorial boards

I agree with most of Armen Gasparyan's criteria for choosing members of an editorial board.¹ Armen recommended that editors should be good authors but I would put more emphasis on editors being good reviewers. Reviewers who provide thoughtful, helpful comments on manuscripts, express their concerns clearly, write tactfully and submit their comments promptly are likely to be an asset to an editorial board. Superficial and consistently late comments, in contrast, may reflect a disorganized person not suited to being an editor or someone with too little time and interest to invest in the journal, regardless of their qualifications as an author. I have found that reviewing skills are particularly helpful for identifying younger editors who have not yet accrued a long publication record and editorial experience.

Editorial boards also need specialists, eg for my journal an expert on animal welfare, and a statistician is essential.² Finally, in a recent study, editors knew surprisingly little about authorship, plagiarism, peer review and conflicts of interest,³ suggesting a need for better training.

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References

- 1 Gasparyan AY. Selecting your editorial board: maintaining standards. *European Science Editing* 2013;39(2):30-31.
- 2 Young SN. My 21 years with the *Journal of Psychiatry and Neuroscience*, with observations on editors, editorial boards, authors and reviewers. *Journal of Psychiatry & Neuroscience* 2011;36(4): E30. doi: 10.1503/jpn.110044

Penalty for low impact factor

Despite several initiatives to eliminate the use of journal-based metrics in funding, appointment and promotion, the ISI Impact Factor (IF) is used increasingly for such purposes. In the Netherlands, at least one academic institution not only stimulates publication in high-IF journals, but also actively discourages publication in low-IF journals. For a designation as "principal investigator", researchers are required to publish at least eight papers in three years in journals that are in the top 25% of the journal's ISI category. This may seem pretty tough, but even more demanding is to avoid low-IF journals. Every publication in a journal that is in the bottom 25% of its ISI category is punished with a penalty point and thus invalidates one of the "top papers". This regulation was deliberately introduced as a "malus" measure.

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News Notes

NewsNotes are compiled by John Hilton (hilton.john@gmail.com)

Some of these items are taken from the EASE Journal Blog (<http://esebookshelf.blogspot.com>) where full URLs may be found

Your paper, your way

A project pioneered by one Elsevier journal over the last year is now being rolled out to 40 other journals. The Your Paper, Your Way scheme has enabled authors to submit papers without strict formatting or referencing requirements. It was the idea of Sir Kelvin Davies, Editor-in-Chief of *Free Radical Biology & Medicine*, who noted that "*although standard formats do make it just that little bit easier for editors and reviewers to see everything in the correct style, the reality is that the advantage is very small, and we should really be focusing on the quality of science and not the format.*" Elsevier has committed to converting any reference style to the relevant journal style, provided sufficient information is provided.

Reducing irreproducibility

In May, all Nature Publishing Group journals introduced new editorial measures to address concerns about reproducibility of published research. The journals will now introduce a reporting checklist that will ensure all papers include sufficient methodological detail to enable scrutiny by reviewers and reproducibility by researchers. The journals will also give more space to methods and will encourage publication of raw data. The checklist is available on the *Nature* website (go.nature.com/oloeip).

ALM Reports

PLOS has been a strong advocate for article-level metrics (ALMs), with detailed metrics reports available for all articles in PLOS journals. In June, PLOS announced the launch of ALM

Reports, which allow you to view and download ALMs for any set of articles published in PLOS journals and "summarize and visualize the data using charts that reveal patterns and trends for further discussion." Anyone can visit the ALM Reports website (almreports.plos.org) and search for groups of articles using various criteria (author, keyword, institution, journal, etc), then create a report for the articles you select. You can find out more about PLOS ALMs at article-level-metrics.plos.org.

OA interviews

Long-timer observer and commentator on open access (OA), Richard Poynder, has carried out a series of four interviews exploring the current state of OA. The interviews, which can be found on Poynder's blog, *Open and Shut?* (poynder.blogspot.co.uk), offer valuable insights into the development of OA and the diverse views on its definition and implementation.

Publishing pilot studies

A group of statisticians, methodologists and clinical researchers has developed a checklist of reporting standards for pilot and other small-scale studies. The checklist is based on the CONSORT statement on reporting clinical trials and was reported in *Nature Medicine* (2013;19:795).

Declaration of Helsinki changes

The Declaration of Helsinki on ethical principles for clinical research was first developed in 1964 and has been amended over the years by the World Medical Association. The latest proposed amendments have proved controversial and will need to be considered by those journals that require submitted human research to abide by the Declaration.

Interestingly...

Neil Saunders, a statistical bioinformatician at CSIRO Computational Informatics has analysed the usage and occurrence

of adverbs in scientific articles. The study, published on Saunders' blog (nsaunders.wordpress.com; 16 July 2013), was intended to be light-hearted but he suggests: "Next time you're writing that article though, ask yourself: is that sentence enhanced by the sentence adverb? Or are you simply following convention?" The top 5 were finally, additionally, interestingly, importantly, and recently. An analysis of which adverbs featured in which journals demonstrated that if your work is 'remarkable' it would be best suited for *Nature*, whereas *PLOS Biology* is the place for 'surprising' work.

Kudos

Kudos (growkudos.com) is a new start-up company set up by a group of established publishing consultants. In its initial pilot phase, partnering with Taylor Francis Group and the Royal Society of Chemistry, is designed to test out "ideas that may help researchers and their institutions increase the readership and impact of their published articles". The aim is to provide authors with the tools to ensure that a published article reaches a broad readership and gains more impact.

DOAJ new selection criteria

The Directory of Open Access Journals (DOAJ; www.doaj.org) has announced new selection criteria for inclusion of journals. The draft criteria were published on 12 June, with public comment sought up until 15 July. The new criteria require journals to be registered with SHERPA/ROMEO, the database of publishers' copyright and self-archiving policies (www.sherpa.ac.uk/romeo). They also require journals to have a clearly identifiable editorial board, to have a minimum of five articles per year, and to allow specific types of use and reuse.

OA statements from funders and ministers

The Global Research Council (www.globalresearchcouncil.org), a virtual collaboration between heads of science

and engineering funding agencies, has issued an "Action plan towards open access to publications". The document, endorsed at the Council's annual meeting in Berlin, sets out a broad agreement to encourage and support open access, while leaving the details for individual agencies to decide on how to implement policies. A month later the science ministers from the G8 nations met in Northern Ireland during the G8 summit and issued a statement on the need for publically funded research to become open data that is discoverable, accessible, and assessable.

CHORUS and SHARE

In response to the US White House directive on access to publicly funded research, the Association of American Publishers (AAP) has unveiled CHORUS, an initiative to enable publishers to comply with the legislation. CHORUS (which stands for Clearing House for the Open Research of the United States) uses CrossRef's FundRef system to identify centrally-funded research and populate a registry of published work that would be made available via publisher's websites. Meanwhile, the Association of Research Libraries (www.arl.org), in conjunction with other organisations, has put forward a parallel proposal called SHARE (SHared Access Research Ecosystem) that uses a metadata framework to link academic repositories in a "federated, consensus-based system." The announcement of CHORUS and SHARE prompted much debate.

The Paper Rejection Repository

When a journal rejects a paper, the disappointed author may receive comments from the peer reviewer(s) that shed light on the perceived deficiencies of the submitted work. If a paper is rejected by multiple journals, the authors may receive a range of comments and letters that can provide an interesting commentary on the paper as well as being a useful source of advice for prospective authors. The Paper Rejection Repository (emlab.rose2.brandeis.edu/rejections), created by a group at Brandeis University

in Waltham, MA, USA, was built to house these rejection letters and reviewer comments. In a recent post on the *F1000 Research* blog (blog.f1000research.com; 6 June 2013), the repository's owner explains how the project came about following lunchtime discussions about rejections and a desire for more transparency and accountability in the peer review process.

EQUATOR Annual Lecture

The 5th EQUATOR Annual Lecture will be given by Professor Kay Dickersin, Director of the Center for Clinical Trials, and of the US Cochrane Center. The free lecture will take place on 9 September to coincide with the International Congress on Peer Review and Biomedical Publication (www.peerreviewcongress.org), in Chicago. The EQUATOR Network (www.equator-network.org) is an international group that promotes transparent and accurate reporting of research studies.

The rise of retractions

Recent research into the incidence of retractions in the scientific literature has shown a sharp rise in recent years. This has been accompanied by increased scrutiny on retractions, and the roles of authors, journals, institutions, and scientific integrity organisations in dealing with them. It would be useful to know whether this increase in retractions been caused by a higher rate of publication of flawed articles or a higher rate of retraction of flawed articles. The latest paper by retraction researcher Grant Steen, published in *PLOS One* (2013;8:e68397), finds that the answer might be 'both', caused by lower barriers to publication of flawed articles and to lower barriers to retraction.

Negative results

The lack of publication of negative results has been blamed variously on academics, editors and industry. Several journals have taken steps to encourage submissions of negative findings, and the journal *F1000 Research* recently accompanied its

call for more papers with negative findings with a promise to waive the article-processing charge for any such submissions until the end of August 2013. The announcement was accompanied by a blog post (blog.f1000research.com; 24 May 2013) asking for input from the research community on the difficult question of how to assess the quality of negative-findings papers. A concurrent article on the *Communication Breakdown* blog (www.scilogs.com/communication_breakdown; 28 May 2013) explores the topic in even more depth.

Peer review views

Is peer review fair, scientific, and transparent? A survey of biomedical academics found that just under half agreed that peer review was fair or scientific and about a quarter agreed it was transparent. The survey, published recently in *BMC Medical Research Methodology* (2013;13:74) gathered 1340 responses from high-ranking universities. Respondents also expressed support for anonymity of authors (58%) or reviewers (64%), and the establishment of an appeal system (68%). Elsevier wanted to find a way to reward peer reviewers, and in June announced the creation of a Certificate of Excellence in Reviewing, which journals award to their top peer-reviewers. Elsevier hopes to roll it out to all journals in 2013.

Portable peer review

Authors whose papers are rejected by the journal *eLife* after peer review will now be offered the opportunity to use the same referee reports if they submit their papers to one of BioMed Central's specialty journals. The 'post-review transfer' agreement with *eLife* (elifelife.org), the journal launched last year by major research funders, aims to speed up and reduce wasted effort in the peer-review process. You can read more on the BMC Series Blog (blogs.biomedcentral.com/bmcseriesblog; 11 June 2013).

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The Editor's Bookshelf

Please write to annamaria.rossi@iss.it if you wish to send new items or become a member of the EASE journal blog (<http://ese-bookshelf.blogspot.com>) and see your postings published in the journal.

ECONOMICS AND FUNDING

Corbyn Z. **Price doesn't always buy prestige in open access.** *Nature* 22 Jan. 2013

An online interactive tool suggests that the open access journals that charge the most aren't necessarily the most influential. This freely accessible tool, called *Cost Effectiveness for Open Access Journals* and launched in January 2013, incorporates pricing and prestige information for 657 open access journals indexed by Thomson Reuters. The data show a journal's Article Influence score against its fee per article.

doi: 10.1038/nature.2013.12259

Gantz P. **Digital licenses replace print prices as accurate reflection of real journal costs.** *Professional/Scholarly Publishing Bulletin* 2012;11(3):1-5

Library Journal's Annual Periodical Price Survey 1990-2010 showed a more than six-fold increase in journal prices since 1990. Institutional libraries have shifted their purchasing patterns from print to digital holdings, and are pursuing licensing agreements that provide perpetual digital access to a body of content, instead of purchasing subscription to individual journals.

EDITORIAL PROCESS

Baethge C, Franklin J, Mertens S. **Substantial agreement of referee recommendations at a general medical journal – A peer review evaluation at Deutsches Ärzteblatt International.**

PLoS ONE 2013;8(5): e61401

This study analyzed the peer review process at Deutsches Ärzteblatt International asking: What is the distribution of reviewer

recommendations? To what degree do the editors follow reviewer recommendations? What is the agreement among reviewers in evaluating manuscripts? Are reviewer recommendations associated with the number of future citations?
doi:10.1371/journal.pone.006140

Joshi Y. **Copy-editing of research papers: who and why and why not.** *Current Science* 2013;104(2):171

This commentary explores the “who and why” of copy-editing. The need for copy-editing to ensure the quality of research papers and the importance of hiring an editor with language and subject expertise are evinced. While it is tempting to believe that good copy-editing contributes to raising the impact factor of a journal, the author couldn't find any research to support this.

Vinther S, Nielsen OH, Rosenberg J, *et al.* **Same review quality in open versus blinded peer review in “Ugeskrift for Laeger”.** *Danish Medical Journal* 2012;59(8):A4479

This study compared the quality of reviews produced by identifiable and anonymous reviewers working for the journal of the Danish Medical Association (*Ugeskrift for Laeger-Ufl*), and characterized authors' and reviewers' attitudes towards different peer review systems (open, single-blinded and double-blinded). The results showed the same quality in reviews, but many reviewers and authors preferred anonymity.

ETHICAL ISSUES

Bala MM, Akl EA, Sun X, *et al.* **Randomized trials published in higher vs. lower impact journals differ in design, conduct, and analysis.** *Journal of Clinical Epidemiology* 2013 (66):286-295

Rigorously designed and conducted randomized controlled trials (RCTs) provide high-quality evidence regarding the effects of health care interventions. This study compared the study design, conduct, analysis and/or reporting of a large cohort of RCTs published in

higher vs lower impact journals. RCTs published in higher impact journals were less prone to risk of bias.
doi: 10.1016/j.jclinepi.2012.10.005

Begley CG. **Six red flags for suspect work.** *Nature* 2013;497:433-434

The author presents six questions that every author, editor, reviewer and reader should ask themselves when evaluating a research paper: Were experiments performed blinded? Were basic experiments repeated? Were all the results presented? Were there positive and negative controls? Were reagents validated? Were statistical tests appropriate?

Fanelli D. **Negative results are disappearing from most disciplines and countries.** *Scientometrics* 2012;90:891-904

One of the most worrying distortions in scientific knowledge is the loss of negative data. This study analyzed over 4,600 papers published between 1990 and 2007, measuring the frequency of papers that, having declared to have “tested” a hypothesis, reported a positive result. The frequency of positive outcomes increased by over 22%. The increase was stronger in the social sciences and some biomedical disciplines.
doi: 10.1007/s11192-011-0494-7

Loder E, Godlee F, Barbour V, *et al.* **Restoring the integrity of the clinical trial evidence base.** *BMJ* 2013;346:f3601

Hidden or misreported information from clinical trials is one of the leading scientific problems of our time. Peter Doshi and colleagues call on institutions that funded and investigators who conducted abandoned trials to publish (in the case of unpublished trials) or formally correct or republish (in the case of misreported trials) their studies. Their RIAT (restoring invisible and abandoned trials) proposal described here provides a minimum set of criteria for the proper and responsible publication and republication of abandoned studies.
doi: 10.1136/bmj.f3601

Wager E. **The UK should lead the way on research integrity.** *BMJ* 2013;346:f2348

The *Concordat to Support Research Integrity*, published by Universities UK, states that research institutions should be responsible for investigating misconduct, according to the COPE guidelines. It recognizes the need for a coordinated approach to research integrity, thus global alignment of guidelines and standards in research integrity are essential. doi: 10.1136/bmj.f2348

LANGUAGE AND WRITING

Barroga EF. **Essential modules for teaching publication writers.** *Medical Writing* 2013;22(1):4-9

This article introduces 16 essential modules by which medical writers can enhance their ability to help researchers communicate effectively. Each module addresses aspects of writing, editing, and publishing articles. A competency evaluation system consisting of 14 competency areas is also described. doi: 10.1179/204748012X13560931063555

Bauchner H, Henry R, Golub RM. **The restructuring of structured abstracts. Adding a table in the Results section.** *JAMA* 2013;309(5):491-492

Today most medical journals use structured abstracts for research articles, although the sections and subheadings vary. *JAMA* introduces the next generation of structured abstract, featuring a table in the Results section that displays the key findings to convey the major results in a clear, concise and efficient manner. doi: 10.1001/jama.2013.76

PUBLISHING

Eger T, Scheufen M, Meierrieks D. **The determinants of open access publishing: survey evidence from Germany.** *Social Science Research Network* 13 March, 2013

A 2012 survey showed significant differences between the scientific disciplines with respect to researchers'

awareness of and experience with both open access journals and self-archiving. Results suggested that the relevance of OA journals within a discipline drives the OA decision. Several other aspects like copyright law, age or profession can play a role. doi: 10.2139/ssrn.2232675

Hopewell S, Ravaut P, Baron G, *et al.* **Effect of editors' implementation of CONSORT guidelines on the reporting of abstracts in high impact medical journals: interrupted time series analysis.** *BMJ* 2012;344:e4178

This article investigated the effect of the publication of the CONSORT for Abstracts guidelines and different journals' editorial policies to implement them on the quality of abstracts of randomized trials published in five high impact, general medical journals. The guidelines improved the reporting when actively implemented by a specific editorial policy. Passive dissemination of information was generally ineffective. doi:10.1136/bmj.e4178

RESEARCH EVALUATION

Buschman M, Michalek A. **Are alternative metrics still alternative?** *Bulletin of the Association for Information Science and Technology* 2013;39(4):35-39

Alternative metrics provide a more complete view of peer response to scholarly writings. A better categorization of scholarly impact would cover usage, captures, mentions and social media in addition to citations. Metrics should include mentions in blogs and other nontraditional formats, open review forums, electronic book downloads, library circulation counts, bookmarks, tweets and more.

Rigby J. **Looking for the impact of peer review: does count of funding acknowledgments really predict research impact?** *Scientometrics* 2013;94:57-73

This paper examines an important bibliometric relationship that has been assumed to exist between the count of the funding acknowledgements received by

a research paper and the paper's citation impact within the context of a single journal. The results suggest that at the level of a specific journal the link is evident but weak. doi: 10.1007/s11192-012-0779-5

SCIENCE

Ismail SA, McDonald A, Dubois E, *et al.* **Assessing the state of health research in the Eastern Mediterranean Region.** *Journal of the Royal Society of Medicine* 2013;106(6):224-233

This review presents an assessment of health research systems across the Eastern Mediterranean region based on publicly available literature and data sources. The review finds that, while there have been important improvements in productivity in the region since the early 1990s, overall research performance is poor, with critical deficits in system stewardship, research training and human resource development, and basic data surveillance. It identifies key areas for a regional strategy and how to address challenges. doi: 10.1258/jrsm.2012.120240

SCIENCE COMMUNICATION

Handjani F, Habibzadeh F. **Medical writing in the Middle East.** *Medical Writing* 2013;22(2):96-98

Over the past three decades, Middle Eastern countries have made substantial progress in both conducting and publishing scientific research. Regional initiatives, such as the foundation of the Eastern Mediterranean Association of Medical Editors and the AuthorAID project in the Eastern Mediterranean, have helped, but challenges remain. Improved training and educational programmes are needed, and the concept, importance, and principles of scientific writing need to be incorporated earlier in existing educational programmes. doi: 10.1179/2047480613Z.00000000112

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A new initiative to monitor proficiency in medical English: sTANDEM

EASE is proud to be involved in this project to develop a Standardised Language Certificate System for Medical Purposes (sTANDEM). This system is intended to promote, assess, and certify the command of professional English among health care professionals and researchers worldwide. EASE endorses both standardization of scientific (including medical) terminology and the use of clear language by all authors of scientific publications in English.

Publicity and dissemination

A major task for EASE in the sTANDEM project is to gain the support of the editorial community in stimulating English language proficiency among authors who do not have English as their mother tongue. Publicizing the sTANDEM project among the editorial community requires that we have addresses of editors who can inform authors (and researchers in general) about the existence of this initiative to promote, assess, and certify the command of professional English. EASE has compiled such a list of editors, which comprises well over 4000 addresses. EASE is now testing the validity of the email addresses in this list.

Development of test materials

The certification will comprise tests for listening comprehension, reading comprehension, speaking, and writing. Several teams are developing the test materials at three levels: B1 (threshold or intermediate), B2 (vantage or upper intermediate), and C1 (effective operational proficiency or advanced). The number of examination tasks is increasing steadily. One of the steps in the development of these examinations is the validation by a Social Validation Board; this validation is now also in progress.

Supporting and Associated Partners

Apart from the core partner institutions constituting the sTANDEM consortium (of which EASE is one) other organizations have become involved in the project. Supporting Partners are organizations that offer support by granting permission to use their copyrighted materials such as audio and text files. Supporting Partners are listed on the sTANDEM [www.standem.eu/index.php/associated-partners/].

Associated Partners offer support in promoting the sTANDEM initiative. The procedure for becoming an Associated Partner is very simple: the institution needs to sign the Associated Partner form available on the sTANDEM website: www.standem.eu/index.php/associated-partners-5/ After the signed form is received the institution is asked to provide its logo, a link to its website, and a brief profile of the institution. In return sTANDEM offers to promote the institution on the sTANDEM website, posting announcements regarding conferences, workshops, etc.

Seven companies and institutions have become Associated Partners. The number of Supporting Partners now stands at 15.

All institutions interested in the sTANDEM initiative are welcome to learn more about the project at www.standem.eu