The Editor's Bookshelf

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EDITORIAL PROCESS

Bornmann L, Daniel HD. **Do author-suggested reviewers rate submissions more favorably than editor-suggested reviewers? A study on *Atmospheric Chemistry and Physics*.** *PLoS One* 2010;5(10):e13345.
The aim of the article is to test whether there is a potential source of bias in the manuscript reviewing in public peer review at the interactive open access journal *Atmospheric Chemistry and Physics* (ACP). Public peer review (author's and reviewers' comments are publicly exchanged) is supposed to bring a new openness to the reviewing process. Results have shown that editor-suggested reviewers suggested by editors rated manuscripts between 30% and 42% less favorably than did author-suggested reviewers. Journal editors should then consider either doing without author-suggested reviewers or, if they are used, bringing more than one editor-suggested reviewer into the review process.
doi: 10.1371/journal.pone.0013345

Stanbrook MB, Hébert PC. **Disseminate time-sensitive research faster.** *CMAJ* 2010;182(1):9.
Traditional dissemination processes used by researchers, policy-makers, regulators and journals may prove inadequate for health professionals and the public, particularly during health emergencies or for reporting possible new risks of widely prescribed therapies. Communication of important research findings with immediate implications for public health needs improvement. The important steps of peer review and revision should be accelerated, and at the same time their quality and integrity should be ensured, as these are even more essential during health emergencies to ensure credibility.
doi: 10.153/cmaj.092077

Rosenfeld RM. **How to review journal manuscripts**. *Otolaryngology - Head and Neck Surgery* 2010;142(4):472-486.
Reviewing manuscripts is central to editorial peer review. A common complaint by nearly all journal editors is the difficulty in finding competent reviewers to assess an increasing volume of submitted manuscripts. Topics covered in this article include: responding to a review invitation, crafting comments to editors and authors, offering a recommended disposition, dealing with revised manuscripts, and understanding roles and responsibilities.
doi: 10.1016/j.otohns.2010.02.010

ETHICAL ISSUES

Drazen JM, Van Der Weyden M, Sahni P, et al. **Uniform format for disclosure of competing interests in ICMJE journals**. *JAMA* 2010;303(1):75–76.
Information included in disclosures of conflict of interests helps the reader to understand the relationships between the authors and various commercial entities that may have an interest in the article contents. This editorial is published simultaneously in all journals that are members of the International Committee of Medical Journal Editors (ICMJE), announcing a new disclosure format that all of them will use.
doi:10.1001/jama.209.1542

Emerson GB, Warme WJ, Wolf FM, Heckman JD, Brand RA, Leopold SS. **Testing for the presence of positive-outcome bias in peer review: a randomized controlled trial.** *Archives of Internal Medicine* 2010;170(21):1934–1939.
Two versions of a randomized controlled trial that differed only in the way the main finding was described (positive finding or no difference) were peer reviewed by 210 reviewers of two journals (*Journal of Bone and Joint Surgery* and *Clinical Orthopaedics and Related Research*). Three forms of positive outcome were observed: reviewers were significantly more likely to recommend the positive version for publication; they detected more errors in the no-difference version; and they awarded higher methods scores to the positive version, even though the two versions had identical methods sections.
doi:10.1001/archinternmed.2010.406

Feldman BJ. **Fraud could be more common than thought.** *APS News* 2010;19(8):5.
Letter to the American Physical Society's *APS News* saying the physics community needs to start to seriously and openly discuss issues concerning the motivation for fraud; it suggests a need for more discussion of fraud and ethics in graduate curricula and also the need for holding supervisors to a higher standard of supervision and ethical training. The importance of reproducibility is also emphasized.

Hamilton CW. **Don't get spooked! How to collaborate with a professional medical communicator (and avoid ghostwriting)**. *Archivum* Immunologiae et Therapiae Experimentalis 2010;58(4):255–261.
Reviews relevant guidelines and provides practical tips for authors interested in collaborating with medical communicators (ie, medical writers and editors). It addresses a series of questions, such as what to expect from medical communicators, how to evaluate them, and how to collaborate ethically and efficiently with them.

Pollock RE, Ewer MS. **The integrity of authorship: doing the right thing.** *Cancer* 2010;116(17):3986–3987.
Examines the balance between

industry support and integrity of authorship. All articles submitted to peer-reviewed journals should be accompanied by full acknowledgement of industry-financed contributions, so that editors and readers can clearly note any relationship that could influence objectivity.
doi: 10.1002/cncr.25268

Shewan LG, Coats AJS. **Ethics in the authorship and publishing of scientific articles.** *International Journal of Cardiology* 2010;144(1):1–2.
The detection of and interest in scientific fraud in publishing increased from 55 articles concerning fraud in 1983 to 167 in 2009. Since January 2009, the *International Journal of Cardiology* has required all papers it publishes to carry a statement that all authors adhere to its principles of ethical publishing and should cite and agree to a published statement of ethical authorship and publishing. Since then, the number of fraudulent cases has begun to fall and, more important, cases have been easier to deal with, as the authors have agreed how their cases should be handled.
doi: 10.1016/j.ijcard.2010.07.030

INFORMATION RETRIEVAL

Editorial. **New APS policies enhance access to journals.** *APS News* 2010;19(8):1–3.
The editors of the American Physical Society's journals *Physical Review Letters*, *Physical Review*, and *Reviews of Modern Physics* have announced a new policy by which all US public libraries are given free online access to all APS journals. They are also allowing free access to the first experimental papers from the Large Hadron Collider. These will be available to anyone under a Creative Commons Attribution 3.0 license and will apply to any LHC papers coming out of CERN in 2010.

Lewandowski D. **Google Scholar as a tool for discovering journal articles in library and information science.** *Online Information Review* 2010;34(2):250–262.
Measures the coverage of Google Scholar for 35 major library and information science journals from 2004 to 2006, and collects information on the types available (abstract, preprint full text, free PDF, and PDF for a fee). Google Scholar was able to index 100% of the articles for only eight journals, although for most journals the coverage ratio was over 95%. It cannot be a substitute for abstracting and indexing services, but it can greatly aid in obtaining full texts of those publications available.
doi: 10.1108/14684521011036972

Pool R. **Preserving research for the future.** *Research Information* 2010;August/September:10–11.
In 2008, a survey went from the Association of Learned and Professional Society Publishers (ALPSP) to its members and in 2010 the Oxford University Press (OUP) surveyed its customers, the librarians, to determine their thoughts on the long-term preservation of digital content. Preservation refers to ensuring electronic scholarly literature remains accessible to future scholars, researchers, and students, even if a publisher ceases operations. The results of both surveys were inconclusive. The issue of payment for digital preservation activities is crucial. A stronger role for governments is also advocated: one initiative could involve the modification of copyright laws to enable digital preservation.

Specht CG. **Opinion: Mutations of citations.** *The Scientist* 2010;16 September.
Just like general information, citations can accumulate heritable mutations. Citation variants – which can comprise the author's name, journal, volume, first page number and year of publication – arise through a variety of mechanisms similar to those described by molecular genetics in genetic terms. As citation variants are often found in publications that cite one another , they seem to be heritable between scientists. The high incidence of wrong citations reflects the fact that information they contain is, to some extent, redundant.
http://www.the-scientist.com/news/display/57689/

Way D. **The open access availability of library and information science literature.** *College & Research Libraries* 2010;71(4):302–309.
To examine the open access availability of research in library and information science (LIS) research, a study used Google Scholar to search for articles from 20 top LIS journals published in 2007. The results showed a lack of archiving of articles, with their not being deposited in institutional or subject repositories at a high rate. This is despite the finding of a previous study that 90% of LIS journals allow some form of self-archiving.

LANGUAGE AND WRITING

Hartley J. **The anatomy of a book review.** *Journal of Technical Writing and Communication* 2010;40(4):473–487.
Provides a full account of the procedures used to write one specific book review. The process involves three main stages: reading, scanning, and making notes about the text; writing an initial rough draft of the review; editing and polishing it several times to produce a final version. Examples illustrate this three-stage process and comments cover the language used in reviews.

Habibzadeh F, Yadollahie M. **Are shorter article titles more attractive for citations? Cross-sectional study of 22 scientific journals.** *Croatian Medical Journal* 2010;51(2):165–170.
In the instructions to authors, journals' scientific editors usually advise that the titles of articles should be concise for better clarity of the message and a greater attractiveness to readers. This study aimed to investigate the correlation between the length of the title of a scientific article and the number of citations it receives. Results show that longer titles are associated with higher citation rates and this association is more pronounced for journals with high impact factors.
doi: 10.3325/cmj.2010.51.165

Rebholz-Schhmann D, Kavaliauskas S, Pezik P. **PaperMaker: validation of biomedical scientific publications.** *Bionformatics* 2010;26(7):982–984.
PaperMaker is a web-based service that helps authors of a biomedical scientific publication to improve their manuscript prior to submission to a journal. It analyzes the document, checks consistency parameters, and gives author feedback on the appropriate use of specialized terminology and references. It also analyzes the proper use of acronyms and their definitions and provides Gene Ontology and MeSH categorization of text passages. At the end of this interactive analysis, the author receives a final summary of findings, the manuscript in its corrected form, and a digital structured abstract.
doi: 10.1093/bioinformatics/btq060

PUBLISHING

Arriola-Quiroz I, Curioso WH, Cruz-Encarnacion M, Gayoso O. **Characteristics and publication patterns of theses from a Peruvian medical school.** *Health Information & Libraries Journal* 2010;27(2):148–154.
Assesses the characteristics and publication pattern of theses published in biomedical-indexed journals by medical students of a private university in Peru with the highest scientific research production. Data relate to 482 medical theses registered in various databases between 2000 and 2003; of these, 85 (17.6%) were published in biomedical-indexed journals. Most of them (80%) were in Spanish and published in local journals, and 17 theses (20%) were published in foreign journals. The percentage of published theses in biomedical journals at this university is comparable with those from developed countries (Finland and France, for example). These results cannot be generalised to all medical schools in Peru.
doi: 10.1111/j.1471-1842.2010.00878.x

Chaudhuri J, Thohira M. **Usage of open-access journals: findings from eleven top science and medical journals.** *The Serials Librarian* 2010;58(1):97–105.
Outlines usage patterns of open-access and hybrid-open-access journals in selected scholarly publications, and analyzes more than 1100 citations from eleven top science and medical journals for the years 2004, 2006, and 2008. The 11 high-impact journals included eight traditional, one open-access, and two hybrid-open-access journals. In most cases, usage of open-access journals increased from 2004 to 2008.
doi: 10.1080/03615261003623070

Harris S. **East meets West as research grows.** *Research Information* 2010;August/September:14–15.
In this first of a two-part focus on China's research and publishing, people involved in research and in supplying research content in China were asked about their experiences of Chinese research and information access. Over the past 10-15 years Chinese researchers have been making great progress in scientific research and publishing, with a dramatic rise in the number of articles coming out of China. According to ISI figures, China's annual output is now second only to the USA's. China is the fifth most frequently-cited source country. The second article (http://www.researchinformation.info/features/feature.php?feature_id=288) focuses on the challenges and opportunities for Western and Chinese publishers in China.

Poeschl U. **Interactive open access publishing and peer review: the effectiveness and perspectives of transparency and self-regulation in scientific communication and evaluation.** *Liber Quarterly* 2010;19(3/4):293–314.
The advantages of open access (OA), public peer review and interactive discussion are demonstrated by this description of interactive OA peer review by the journal *Atmospheric Chemistry and Physics* and some other interactive OA sister journals. Interactive OA peer review with a two-stage publication process and public discussion effectively resolves the dilemma between rapid scientific exchange and thorough quality assurance.

Salo D. **Who owns our work?** *Serials* 2010;23:191–195.
The role of intellectual property rules in scholarly communication is becoming increasingly complex, and research is becoming more collaborative and innovative. As a result, authorship and ownership criteria are being challenged, while institutions, funding bodies, and libraries are emerging as stakeholders in the publishing process. This article looks at where publishers fit into this question.
doi: 10.1629/23191.

RESEARCH EVALUATION

Bornmann L, de Moya Anegon F, Leydesdorff L. **Do scientific advancements lean on the shoulders of giants? A bibliometric investigation of the Ortega hypothesis.** *PLos One* 2010;5(10):e13327.
The Spanish philosopher Ortega y Gasset says that top-level research cannot be successful without a mass of mid-level researchers on which the top ones rest. According to this hypothesis, highly-cited and medium-cited papers would refer equally to papers with a medium impact. Should research funding be focused on elite scientists or rather aim at generating scientific capabilities among the scientific community? The question here was addressed from a bibliometric perspective, analyzing field-specific journal sets covered by the Scopus database for 2003. It showed that highly-cited papers more frequently cite highly-cited papers. These findings support the so-called Newton hypothesis - seeing further only by standing on the shoulders of giants.
doi: 10.1371/journal.pone.0013327.

Klavans R, Boyack KW. **Toward an objective, reliable and accurate method for measuring research leadership.** *Scientometrics* 2010;82:539–553.

This article proposes an alternative method of measuring research leadership for an actor, be it a university, state, or nation. Results from this method have been compared to results calculated by use of a traditional journal category-based approach for determining leadership. The method is based on highly cited reference papers, rather than journals, and defines three different types of leadership: publication leadership, reference leadership, and thought leadership. The comparison provides evidence that this method more accurately portrays the actual patterns of research leadership at the national level.
doi: 10.1007/s11192-010-0188-6.

Van Noorden R. **Metrics: a profusion of measures.** *Nature* 2010;465:864–866.
Within the past decade, the development of scientific performance indicators has accelerated rapidly, accompanied by the the ready availability of online databases such as the Web of Science, Scopus, and Google Scholar. The author offers a survey of this evolving situation: from the impact factor to the *h*-index and its more than a dozen variants and to the increasingly popular class of measure called "evaluative informetric". This last metric gives heavier weight to citations from papers that are themselves highly cited.
doi:10.1038/465864a.

SCIENCE

Baggerly K. **Disclose all data in publications.** *Nature* 2010;467:401.
Three clinical trials at Duke University in the USA were suspended late last year following a protracted investigation. The problem was their inability to reproduce the "genomic signatures" used to select cancer therapies. Is it the job of journals to help maintain reproducibility as a cornerstone of the scientific process?

Stefan M. **A CV of failures.** *Nature* 2010;468:467.
The CV of a scientist does not mention his or her failed exams, unsuccessful fellowship applications, rejected projects, or papers never accepted for publication. The author suggests one should compile an "alternative" CV of failures, that could include every rejected application, project proposal, and paper. Keeping it visible has two purposes: to remind each scientist of his or her own setbacks and to help other colleagues to shake off a rejection and start again.
doi: 10.1038/nj7322-467a

SCIENCE COMMUNICATION

Armbruster C. **Implementing open access: policy case studies.** *Social Science Research Network* 2010;October 14.
We are approaching the end of the first generation of open access implementation. This report evaluates progress by focusing on a few cases, including the University of Zurich, the Wellcome Trust, UK PubMedCentral, SCOAP3, the Howard Hughes Medical Institute, and the Austrian Science Fund. It examines the impact of open access on digital scholarship, with suggestions on what we can learn from such cases.

Chavalariasab D, Ioannidis JPA. **Science mapping analysis characterizes 235 biases in biomedical research**. *Journal of Clinical Epidemiology* 2010;63(11):1205–1215.
Many different types of bias exist in medical research and publishing. This systematic mapping analysis of over 17 million articles from PubMed found 235 bias terms and 103 other terms used commonly in articles about bias. The title or abstract of more than 100 articles each contained 40 terms. Clusters of terms were organized into macroscopic maps showing the distribution of bias types. Some bias terms (confounding, selection bias, response bias, publication bias) appeared increasingly over time.
doi:10.1016/j.jclinepi.2009.12.011.

Courant PN, O'Donnell JJ, Okerson A, Taylor CB. **Improving access to research.** *Science* 2010;327(5964):393.
A report issued by the US House of Representatives Science and Technology Committee's Roundtable on Scholarly Publishing in January 2010 recommends that journal articles derived from federal research funding should be made publicly available as quickly as practicable (generally, in a year or less after publication). The report calls for each US funding agency to develop public access policies and focuses on the critical role of peer review, the need for continued engagement among stakeholders, and the importance of fostering innovation.
doi: 10.1126/science.1186933.

Shrager J. **The promise and perils of pre-publication review: a multi-agent simulation of biomedical discovery under varying levels of review stringency.** *PLoS One* 2010;5(5):e10782.
A web-based review process must be carefully designed to allow for easy filtering of publications based upon their review type and quality. The author used a multi-agent simulation of treatment selection and outcome in a patient population to examine how various levels of pre-publication review might accelerate or hinder scientific progress. The results do not answer the specific question but show that both completely unreviewed and very strictly reviewed scientific communication seems likely to hinder scientific progress.
doi: 10.1371/journal.pone.0010782.

Thanks to John Hilton and John Glen.

Anna Maria Rossi
Penny Hubbard