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“THE SCIENTIFIC/SCHOLARLY LITERATURE”

See “A Strategic Approach to Research Publishing in South Africa” (Academy of Science of South Africa , 2006), and “Scholarly Books: their Production, Use and Evaluation in South Africa” (Academy of Science of South Africa, 2009) both accessible at www.assaf.org.za

THE WORLD KNOWLEDGE SYSTEM

The world knowledge system exists through the explicit or tacit acceptance by virtually all participants of a set of principles which regulate the publishing of research findings or ideas:

- The reported findings must be original, the first report of such findings. This most fundamental principle pre-supposes that authors submitting manuscripts containing “new findings” will have had access to the universe of relevant existing literature and will not knowingly suppress the fact that the findings have in fact been reported before
- Reports must contain, or permit reference to, sufficient detail of the methods and materials used in the study to permit replication in the hands of other scholars
- Integrity of reporting requires that no inconsistent data are omitted, and that no fabricated or plagiarised data are presented
- The statistical treatment of data must be thorough and the conclusions reasonable

(WORLD KNOWLEDGE SYSTEM- CONTINUED)

- The existing relevant literature must be appropriately and fairly cited; efforts are always made to ensure that reference is made to the first report of a finding rather than a later elaboration (see later, citation analysis)
- Special attention must be given to the first “lead” author (sometimes explicitly shared), and the inclusion in the authorship listing only of persons who have contributed directly to the production of the work at an intellectual/conceptual level.
- Speculative deductions and postulations must be clearly specified and kept to a minimum.
- Acknowledgement of funding sources and possible conflict of interest must be complete, and author affiliations provided which reflect both the period of the study and the present situation.

(WORLD KNOWLEDGE SYSTEM- CONTINUED)

- While priority is accorded from the date of publication of an article, not from its date of submission, i.e. the peer review must have already taken place, both dates are always given in the published version.
- Post-publication detection of errors and falsifications must always be retracted in print in the same journal.
- Finally, there is a strong “best-practice” rule that studies addressing a particular question should not be broken up into a series of scattered short publications but preferably be presented once as a full record of the work and its results (modern approach to career evaluation= best publications only)

The core role of the editor

The essential requirement is for responsible and fair editorial oversight, exercised to ensure that:

- an editorial policy exists and is accessible to authors;
- submitted manuscripts are carefully examined with a view to the selection of appropriate peer reviewers;
- reviewer reports are carefully assessed to decide whether, individually and summatively, they constitute the basis for the publication of the article in question, or whether publication should follow if certain improvements are effected and/or further work done and reported on, or whether the paper should be refused;

Core role of the editor (continued)

- special statistical review is sought, if needed;
- the focus of the journal is protected;
- misconduct is detected if at all possible (e.g. presentation of data, graphs or figures already published elsewhere; inconsistent data sets; plagiarism);
- errata and retractions are properly managed and made part of the record; and
- the journal as a whole contextualises reported findings in its editorial and supplementary sections (enrichment functions of journals)

Peer reviewers

Peer reviewers have especially to:

- scrutinise the methods and results in terms of consistency, interpretability and likely reproducibility;
- identify gaps that could or should be filled to enhance the interpretability and strength of the findings;
- suggest how the paper can be improved in terms of style, length and focus;
- assess the proper citation and referencing of previous studies (as outlined above the “principles” section), including the critical issue of the originality of the work;
- contest conclusions not justified by the results presented; and
- “place” the work in the existing matrix of knowledge in the relevant area or field.

IT MUST BE POSSIBLE TO:

- **publish one's work in journals that are respected for high standards of editorial discretion, peer review and accurate presentation;**
- **reach the largest possible readership (preferably everybody who matters to the authoring scholar), in order to achieve the five core functions of publication described by Roosendaal and Guerts (1997), namely those of registration, certification, making aware (inviting collaboration), archiving and reward- seeking; and**
- **Subject oneself to the discipline of the periodic publication of completed parts of work in a format that requires extreme rigour, reproducibility or results, appropriate reference to the work published previously by others, robust interaction with critically constructive reviewers and editors, and a tight relationship between the evidence presented and the conclusions drawn therefrom.**



THE COMMON LIBRARY OF SCIENCE/SCHOLARSHIP

Publications are the “open domain” of continued scientific progress through verification by others, (occasional but necessary) retractions and errata, citations and cross-references, and the building up of “bigger and more accurate pictures”, always subject to the test of “consistency with hypothesis”.

“INTERNATIONAL JOURNALS”

- **INTERNATIONAL JOURNALS (i.e. those that are listed and indexed in important databases used internationally, and/or those which are distinctly international in terms of article authorships and circulation to subscribers and libraries) present attractive targets for South African researchers who seek the publication functionalities described above.**
- **Most attractive are the journals with high impact factors which enjoy the highest degree of visibility and the most emphatic attainment of the Roosendaal and Guerts (1997) functionalities listed above.**

A hidden “World war” in research publishing

- **Open Access (OA) – its time has come....**
- **OA Business models evolving for journals (“gold route”): “author pays” most common, mixed models also, mostly marginally profitable or donor-dependent**
- **Institutional repositories (“green route”) developing across globe, but publishers resisting.....**
- **BUT.....Highly profitable commercial multinational system entrenched: pay to read, subscribe or use**
- **Copyright issues very difficult**
- **Who knows the outcome?? Could be huge savings for the system.....**