

## Selection of research scholars for ad hoc research projects and other academic posts

If one goes through the advertisements that call for research scholars for sponsored ad hoc research projects, one finds that these are to search for Senior Research Fellows (SRFs) with qualifications such as MSc with two years experience and/or MPhil. Every year the UGC/CSIR conducts an examination for the selection of Junior Research Fellows (JRFs). Students who qualify get into many preferred laboratories with a stipend not less than Rs 8000, whereas, the SRFs selected for the ad hoc projects are entitled to receive Rs 5500 as consolidated stipend throughout the project period. It is strange that a SRF gets a lower stipend than a JRF and this needs to be corrected from the policy point of view.

While publishing the results for JRFs the UGC/CSIR can, in addition, bring out a second list comprising the names of candidates who can be accommodated in the government or any sponsored project. The candidates from the first list can be recruited as JRFs and those in the second list can find place in

various research institutes, whenever there is a call for research scholars in sponsored projects or can be permitted to join university departments to do Ph D without stipend. This list can also be based on the reservation policies of the Government of India. This will not only stop the criticism on the mode of entry, viz. recommendations, nepotism and other sources of influence, but also help students from one part of India to migrate to another part in search of wisdom and also a degree. This process will also streamline Ph D admissions in all institutes of excellence, universities and colleges in India. It will help the rural colleges to upgrade the syllabi and also train/prepare their students to take up this examination compulsorily. This is stressed here, as most of the rural colleges are yet to upgrade their syllabi to suit to the needs of time and for advancement of subjects. The students from rural institutes rarely participate/contest in these examinations. Also, to the surprise of the scientific community, the UGC recently advertised for the

selection of lecturers in selected universities from the fresh postgraduate pass-outs. Without discounting the quality and knowledge of the fresh postgraduate students, I would like to stress on the need to encourage the existing experienced group (in research institutes) of research scholars, SRFs, RAs and Pool Officers, for such posts. As India is flooded with a number of experienced Ph D degree holders, the mentioned kind of advertisements will make those who have spent many years in university departments and research institutes, frustrated. Implementation of a fool-proof 'All-India Oriented Academic and Scientific Manpower Selection' process is required urgently to offset this kind of anomaly in future.

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## Effectiveness of secondary services for knowledge and sciento-informetric analyses

The term secondary services applies to current bibliographies, list of indexes and abstracts which are regularly published either in hard copy or as machine-readable database (say on CD-ROM or online through the net). These are called secondary services because they list the output of research published in the form of 'papers' in conference proceedings, journals, websites, e-print journals and full text databases. Examples of secondary services are Physics Abstracts (hard copy), INSPEC (machine-readable), Current Contents, Citation Indexes, Indian Science Abstracts (ISA), Current Literature on Science of Science (CLOSS), Social Science Index, etc. There are now thou-

sands of secondary services on different subjects or topics.

The aim of these services is to help in information retrieval, to find important and necessary items for study. The bibliography-type services like Physics Abstracts or INSPEC, BIOSYS, MEDLARS, ISA, etc. provide access to older materials (published in the immediate past). But services like citation indexes provide information about most recent items in relation to known information about past items (without any limit to the age).

These services, both traditional abstracting and indexing services and citation indexes are now used heavily for researches and investigations on science

of science, science policy, etc. But usefulness of almost all of the secondary services as source of science of science data is frustrating. Whether hard copy or machine-readable form, the sources do not supply important data about the original article indexed. Our experiences with a number of these services have made us realize that unless these services provide certain vital data elements, bibliometric science studies will always remain crippled and severely partial. The elements needed are mentioned below.

The Science Citation Index® (as also Social Science Citation Index® (SSCI)) and Arts & Humanities Citation Index® (A&HCI) published by the Institute for

Scientific Information<sup>®</sup>, Philadelphia, USA, though provides a number of vital informational elements in its source index, is very much restricted in the selection policy of coverage of journals. This principle of selection is very acute for SSCI and A&HCI. The way citation indexes hamper development of Third World science research and also research in Third World science shocked Siniša Marièiæ, a veteran information scientist and scientometrician from Croatia. Marièiæ wrote a number of papers on critical assessment of citation indexes for the peripheral (Third World) science. In an article entitled 'The Three Faces of the Citation–Janus' he wrote<sup>1</sup>, 'Analogy of two-faced Roman god, Janus is used to depict the Citation Indexes (CIs). Janus proper has only two faces, looking backwards and forwards connected by the same head. The Citation Janus looks at the cited items, while opening a perspective for future publications. But for CIs, a third face appears to have emerged. The first face, the handsome face of Citation Janus (*h*-face) is the very substance and the reason for which the CI was created. It will continue to have its definite advantages over other structures of bibliographic recordings, because it stemmed from an operational mechanism inherent to the process of science. The second face, the mirror-face (*m*-face) emerged when CIs were made to convolute on themselves in order to rank the very journals nourishing the CIs. The main object of CI is retrieval of scientific literature, which is done by the *h*-face and *m*-face. But the third face of the Citation Janus is really repelling. While the *m*-face impinges only indirectly on to the social process of science, via journal editing, face-3 does it most directly. The author suggests that ISI<sup>®</sup> should stop including peripheral journals from the Third World countries. Otherwise the scientific endeavour of developed countries is likely to survive the ill-effects of *m*-face or face-3 of Citation Janus, but not that of the developing countries'.

Keeping aside the citation indexes of ISI<sup>®</sup>, the traditional indexing and abstracting services are widely used for Third World scientometrics and science of science studies. The information elements we require are full addresses of each of the authors (some primary journals omit the name of the country or state), subject keywords or some sort of class numbers, volume, issue, pagination (both starting and ending pages), dates of receiving, accepting and publishing, etc. In most cases, address of the first author is given. It is not even clear whether the other authors of a joint paper have the same address as the first author or not. Subject of an entry is not clearly labelled. A pluridisciplinary item cannot be found through all the subjects it shares. The subject index of a secondary service needs to be more transparent.

Age distribution of articles is of vital importance. But sciento-informetricians can only take a single date (i.e. year) for all items covered in a year in a secondary service. Say, for example, ISA for 1998 has included 21,730 and Physics Abstracts for 1998 included 1,92,987. In reality, the figures include items published in 1996, 1997 and 1998. There is no way to estimate the exact number of items for 1996, 1997 or 1998. The secondary services should allow access through date of publication of the original article indexed. Furthermore, dates of first submission and acceptance should also be mentioned (this information is usually available in primary publications).

In most of the secondary services, the number of references are not mentioned. This is a vital information. The country of origin of primary journals needs also to be mentioned. In the machine-readable form, a comprehensive list of journals with their abbreviations should be provided. Abbreviations of journal titles and institutions are also a menace. Will it be too much space-consuming to put full forms of names of institutions, journals, authors, etc.?

There have been proposals<sup>2</sup> of indexes combining features of both traditional abstracting services and citation indexing services along with the data elements explicitly represented. In some cases, data elements are missed in the original itself. A number of journals like *Current Science*, *Nature*, etc. do not provide the title of the article in the reference. Eugene Garfield, in a recent letter to *Current Science* (in fact we had noticed after we had prepared this letter, but before mailing it) has written<sup>3</sup> about the 'unfortunate, archaic policy of omitting titles from cited papers/references'. This may hinder content and context analysis for information processing and sciento-informetrics.

We make a request through this letter to the editors of primary journals and secondary services, and also the knowledge managers and sciento-informetricians to create maximum and uniform information access of bibliographic data elements in primary journals and secondary services for the sake of more profound and more intelligent science studies.

1. Marièiæ, Siniša, *JISSI: The International Journal of Scientometrics and Informetrics*, 1996, **2**, 59–61.
2. Sen, Subir K, *ABSCINDEX: Proposal of a new tool for information retrieval and science indication in regional contexts*, *Ann. Libr. Sci. Doc.*, 1988, **35**, 116–123.
3. Garfield, Eugene, *Curr. Sci.*, 2001, **81**, 9.

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