

OF REFERENCES AND INTELLECTUAL DEBTS

'If I have seen further it is by standing on ye shoulders of Giants'.

—Isaac Newton

Beginning this issue, authors and readers of this Journal will observe a new format of bibliographical references at the end of the papers. It may further take a few more issues to make it uniform as the new style is still in the transition period.

A reference is a formal description of a document source with a set of elements in a standardised sequence. It is an integral part of a research paper and plays an important role in its life. It enables the readers to identify, locate, understand and decide whether the cited paper should be consulted or not. For this purpose the references should contain all the necessary information for easy access and retrieval by the readers. References serve various other purposes also. They may be cited to substantiate, explain, or elaborate a particular point. They may also be referred to contradict or negate the conclusions of an already published work. In any case they serve the author and the reader alike.

Though the necessity and importance of the references are felt by the editors and publishers of journals, no universal standard or style is being followed for citing references in the text or for listing at the end. The styles include (i) citing numerically as per the sequence of their citation in the text, (ii) citing numerically in the text according to the alphabetical listing of citations at the end of the paper, and (iii) citing author and year. It is common to find journals brought out by the same organisation in the same field following different practices. There have been a few attempts suggesting a uniform style for references of various types of documents. But there seems to be little consensus.

It is an established convention to build the base of a scientific paper on the scholarly literature already published in that field. This is done by linking the current work to the relevant earlier work by acknowledgements, thereby paying the intellectual debts. But how well do we acknowledge intellectual

debts? A common problem is quoting one's work without explicit acknowledgement. Many a time, watchful editors and well-informed referees prevent acts of plagiarism and missing references. It happened in the case of Defence Science Journal (DSJ) also. Prof AS Gupta (IIT, Kharagpur) and Prof N Rudraiah (Gulbarga University) recently pointed out two papers submitted for DSJ which actually were published in the 60s and 70s respectively. Sometimes this becomes very difficult unless the work reproduced is published in a fairly well-known journal or the research itself is fairly well-known.

Failure in citing the sources may at times be due to oversight or carelessness; or author is not honest enough to cite. Sometimes, it is observed that a number of references were added merely to lengthen the list of references. On a few occasions we have observed that the references were made to secondary periodicals such as Chemical Abstracts. Another widely observed phenomenon is the 'lifting' of references from the citations of other papers which the author might have used for his research work. These are not correct practices because authors are supposed to refer the original work and are held responsible for the accuracy and authenticity of the references. It is also imperative that they should be able to provide the necessary cited material if called for by a referee. Nevertheless, there are many instances where the information given in a reference is incomplete or erroneous or both.

There is a general feeling that many an author does not take enough care in writing down the references. This calls for reference checking which is an important editorial function. There are many journals which check the authenticity of the references of the papers accepted for publication. The Editors of DSJ too verify references by using various reference sources and provide the missing elements, such as year or place of publication, correct title of the journal, volume number, etc. This is possible to a limited extent only because DESIDOC's Defence Science Library does not subscribe to all the journals which are cited in the papers accepted for publication in the Journal. A qualified reference checker, can verify about 10 references an hour provided that all the reference sources are available. On an average, a research paper published in DSJ would have about 16 references and needs 1½ hours for checking. In the case of special issues, more time is needed as the number of references per paper is generally higher.

There are several practices in a given style of references relating to, for example, the number of authors in references (Nature, Science, Current Science and many other journals include upto five authors), their full last names (as given by a majority of journals), initials before last names (Science, Physical Review), inclusive pages (Nature) or first page of the paper (Physical Review). We feel that the most important component of the citation is the

title of the research paper (which is not given by many an important international journal like Nature, Science, Physical Review, etc), which if included would certainly help the reader. We have therefore, started including this component in the references with this issue. We request our contributors to follow the new style in preparing the references in their future contributions to DSJ.

An accurate and authentic list of references becomes a record after publication, which enters into citation indexes. It is taken as an authoritative source in compiling bibliographies. Most of the bibliographies and secondary periodicals draw their data directly from the references. Any error crept into the citations at the stage of typescript preparation would become difficult to be detected and corrected in the later stages. Therefore, these secondary periodicals would be as accurate as the original references. The errors like misspelling of author's name, title of the paper or book or journal, pagination, etc are introduced through citing author's inaccurate transcription.

The foregoing deserves serious consideration because of the casual way references are treated by many authors. So, all those concerned with the scholarly communication; i.e., editors, referees, authors and readers; must take remedial steps to ensure completeness and authenticity of references. Also, it is the duty of the editors to bring to the notice of the authors and reviewers the importance of references. Referees should critically examine the references also. As specialists in a given field, they normally have better chance of pointing the incorrect references. Finally, we stress the need for verifying references, even at random, at various stages of publication of papers, which would enhance the quality of the papers and ensure better information retrieval for the readers.

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