BIBLIOGRAPHICAL REFERENCES: RANGANATHAN'S IDEAS AND PRACTICES

The practice of citation is well established but the mode of citation is not yet standardised. This is an area where considerable efforts have been made to get into a standard practice. The subject could not escape Dr Ranganathan's attention and his analytical mind brought some fresh ideas to bear on it. The paper brings out Dr Ranganathan's ideas and practices in this respect and their gradual evolution.

Introduction

The practice of citing work previously published is quite common in scientific writing. The earliest mode of citing such a work was in the form of a footnote. Hence a bibliographical reference or citation is even now called a footnote. It appears that the lowly footnote has attained greater importance in recent years due to a number of reasons. It is quite natural that the practice of citation, its wide variations, possibilities of standardization, etc. did not escape Dr Ranganathan's attention and his analytical mind brought some new ideas on this subject too as on many other subjects as is well known.

Plums of Sabari: Authors Bibliographies

We get perhaps the first significant pronouncement of Dr Ranganathan on bibliographical citations in a passage deeply soaked in the sublimity of the great epic of the Ramayana. He wrote, "Readers constitute the ultimate consumers of the intellectual content of prints. Authors...are both consumers themselves and indirect helpers to the ultimate consumers. They have had to consume the literature cited by them in the very process of the creation or compilation of their own works. Fortunately, it has now become a healthy practice for such consumers to lay bare in their works an exhaustive list of all that they have consumed. For the benefit of their readers...this by-product turns out to be of immense benefit to other consumers. In this, authors resemble Sabari who herself tasted everything in collecting offerings to the Lord Shri Rama...Their bibliography is like the plums of Sabari, tasted by themselves and yet meant for distribution"[4]. Thus Dr Ranganathan maintained that bibliographical references constituted a distinct type of bibliography - a bibliography created by authors. He named them 'Authors Bibliographies'. It is out of this conviction that he used in his own works, both books and articles, the term 'Bibliography' for the list of references cited. This was completely against the views of traditional bibliographers who refused to call any list of references a bibliography as the following quotation from Malclés would bring out the point. She maintained, "it is therefore improper to call the list of works cited at the end of a book or article bibliographies. These are references to the texts consulted by the author, and not the systematically constructed bibliography of the subject [3]. Similarly, Paul Dunkin maintained, "A list of footnotes and a bibliography are different things because they serve different purposes...a bibliography can stand alone and, indeed, may be intended to do so...A list of footnotes...cannot stand alone, and it is not expected to do so"[1]. However, to be in line with current usage, Dr Ranganathan also changed over to the expression 'bibliographical references' in his later works.

But How to Cite

The aspects of the present subject that have attracted greater attention from all interested parties can all be grouped under the question - how to cite? Different aspects are - what elements of information should be there in each citation or how much to include, whether each element should be given in full for abbreviations are possible, what should be the sequence of elements in each citation, position of citation and lastly whether any standardization is possible in these matters. Dr Ranganathan had something to say on practically all these points.

How Much in a Citation

The question, how much to include in a citation depends to a large extent on the basic question of the purpose of a citation. This has been variously stated by different authors. Some would emphasize that a citation is an important message from the author to his readers. Hence it should be as complete as possible, even at the cost of some redundancy. Others believe that it should contain just enough details by which the referred-to document can be identified. Some
would even advise a reference in almost a cryptic form. Even the titles of two recent articles clearly point out this difference of opinion. The titles are 'Happiness is a long footnote' by Paul S. Dunkin [1] and 'Misery is a short footnote' by Phyllis A Richmond [6]. Dunkirk was a bit satirical in choosing that title. What he advocated was a short reference without any redundancy. To his pleadings Jesse Shera replied in his own inimitable way - "Paul is also against the principle of redundancy, and this too, he would seem to be at war with Nature, for our lives, our fortunes, and our sacred honor are filled with redundancy. Redundancy is built into man's very biological structure..." [1]. Phyllis Richmond said, "...The utter faith of scientists that librarians can find things from their short footnotes is touching...A part of the current literature crisis...can be attributed to the use of super-short and cryptic footnotes, which hide sources rather than lead to them".

Much of the differences that have been projected above is due to the fact that a clear statement as to the purpose of a bibliographical reference has been lacking so far. Similarly, another source of difference has been the absence of a clear idea as to what a bibliographical reference should mean. When one pleads for a short citation, usually he has in mind a reference to a document by an author is his own writing. The question is whether a bibliographical reference should mean only this type of reference or its meaning can be extended to include other types of references also. Dr Ranganathan's views on these points are available to us from two documents - one is the Indian Standard on the subject which reflects largely his views [2] and the other is an article published about two years after the standard [5]. In the next few sections we shall largely draw on these two documents.

**Items of Information in a Citation**

In the Indian standard, bibliographical reference has been defined as, "A sequence of items of information needed for enabling a reader to identify the document referred to. It may also include, when required, the character, scope, publisher, place of publication, price, etc., of the document". In the same document we are also told, "...a bibliographical reference should consist of sufficient data for the identification of the original publication". Thus in both the places the emphasis is on identification. Hence, the second sentence in the definition seems to be slightly out of context. If identification is the main objective why should information about the character, scope, etc. be there in a bibliographical reference? Identification is important, no doubt, but it appears, something more than that is required. Something was kept implicit. We find, this has been made explicit in the second document. In page 30 of the document appears in a tabular statement 'the items of information necessary for the identification, location, and evaluation of the referred-to document' (i.e. the cited document). In other words, it is accepted that a bibliographical reference should consist of sufficient data for the identification, location, and evaluation of the original publication. By location is actually meant the locus in the host document. Items of information for evaluation may be physical factors like format, number of pages, inclusive pages in case of a part of document, typography, etc. and also author's designation and place of work, annotation, abstract, etc. for evaluation of the thought content.

**Place of Occurrence of a Citation**

According to the Indian Standard a bibliographical reference may occur in a document:

- a) in the body of text;
- b) in a footnote;
- c) partly in the body of the text and partly in a footnote;
- d) at the end of the text or its chapters or sections;
- e) in an entry of an abstracting or indexing list or periodical, or a documentation list; or
- f) at the beginning or end of a review.

In the second document also a similar statement has been given with a few more permutations got out of the combinations of, in the text, in a footnote, and at the end of text mainly. A look at the above six types of references will reveal that actually they belong to two broad categories. The first four types (a to d) refer to references made by an author in the referring document which are meant for his readers, who, one can expect, will be more or less within the same profession. Moreover, most of the items of references will be already known to many of the readers. Hence, items of information in such references could be less and just enough for identification.

The last two types (e and f) of references are of a different category. They refer to citations in abstracting and indexing or bibliographical lists and reviews. The essential characteristics of such citations are that most of the documents being referred to are new and are being introduced for the first time and these lists are not only used by specialists but by others also, like librarians, documentalists, bibliographers, etc. Hence apart from identification, references should contain enough details for their location and evaluation.

**Indian Standard Recommendations**

The above has exactly been the line of thinking as can be seen from the recommendations of the Indian Standard and this has been made more explicit in the article (the second document). When this distinction is realised and accepted, one can easily appreciate the recommendations of the Indian standard. The standard has actually two sets of rules for...
citing each type of documents. For example, an article in a periodical can be cited by an author in his own work and the same article can also come as a citation in an abstracting and indexing periodical or list. But the items of information in the citation for the same document will be different in the two cases.

As we have already seen, in the former case the emphasis is on identification, hence the citation can be shorter than the second case where the items of information for location and evaluation are also prescribed. Thus the following are the items of information to be mentioned for referring a contribution to a periodical (article):

<table>
<thead>
<tr>
<th>Other than one in abstracting or indexing list or periodical (A)</th>
<th>In an abstracting or indexing list or periodical (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Name(s) of author(s);</td>
<td>a) Name(s) of author(s);</td>
</tr>
<tr>
<td>b) Title of contribution shortened, if necessary;</td>
<td>*b) Name of institution where the work is done, in parenthesis;</td>
</tr>
<tr>
<td>c) Title of the periodical, along with the name of sponsor if inseparable from the title or if necessary for identification, abbreviated if desired;</td>
<td>*c) Address of author;</td>
</tr>
<tr>
<td>d) Volume number;</td>
<td>d) Title of document;</td>
</tr>
<tr>
<td>e) Issue number, if each individual issue in a volume is paginated independently;</td>
<td>e) Translated title, in parenthesis;</td>
</tr>
<tr>
<td>f) Year;</td>
<td>f) Title of periodical in which the contribution occurs, in an abbreviated form;</td>
</tr>
<tr>
<td>**g) Date of issue;</td>
<td>g) Volume number;</td>
</tr>
<tr>
<td>**h) Page(s) - first and last pages in inclusive notation; or specification of place of occurrence;</td>
<td>h) Issue number, whenever each individual issue in a volume is paginated independently;</td>
</tr>
<tr>
<td>**i) Occurrence of plates;</td>
<td>**j) Occurrence of synopsis/abstracts in a language other than that of the article;</td>
</tr>
<tr>
<td>**k) Occurrence of bibliography</td>
<td></td>
</tr>
<tr>
<td>**m) Occurrence of the synopsis/abstracts in a language other than that of the article;</td>
<td></td>
</tr>
</tbody>
</table>

* Indicates that the items are optional.

Thus we find from the above table that three additional items have been prescribed for a reference in an abstracting or indexing list or periodical. These are b) name of institution..., c) address of author, and e) translated title. The first of these items is obviously prescribed for evaluation. The second item is for facilitating direct contact with the author for any clarification, further information on the subject of the contribution, or for getting a reprint. The third item is again for evaluation. Similarly, the difference in emphasis in items (c) of A and (f) of B is also noticeable. In the former case, the title of the periodical is prescribed to be properly identified and abbreviation is recommended only when desired. But in the latter case abbreviation is positively prescribed. It can be easily realised that this will secure considerable economy for an abstracting/indexing periodical and complete identification of each title is still possible with the insertion of a list of titles with respective abbreviations. This is exactly what is done in most of the abstracting/indexing publications. A slight difference in the prescription of items (h) of A and (m) of B can also be easily explained.

The Indian Standard states that "the amount of information essential will depend upon the nature of..."
the publication cited. This is quite understandable but what has not been explicitly stated is that the amount of information essential, in a bibliographical reference, depends also upon the nature of the publication (through it the purpose also) where the citation is made - i.e., whether the citing document is an abstracting/indexing or any other bibliographical lists or it is any other type of document.

Style of Citation of Dr Ranganathan

Now we come to consider another aspect of Dr Ranganathan's contribution towards standardisation of bibliographical references. This is more towards evolving a distinct style of reference. Even when some agreement is reached on the question of items of information to be contained in a reference there may be widespread difference on the question of how to make a reference. Here the problems are - where to cite the reference, in the text, footnote, or at the end of the text, what should be the device for linking a reference to its actual place of mention in the text (if the reference itself is not in the text), the internal arrangement of the reference if they are grouped together at the end of the text, etc. The previous two documents do not recommend anything on these points. To get an idea of Dr Ranganathan's view on these points, we have to see his own style and practice of citation. So far as place of occurrence of bibliographical reference is concerned he has used different styles. In both his Five laws (1931) and Reference Service and Bibliography (1940) references occur as footnotes. In the Prolegomena (ed.2, 1957) references occur within the text. But in most of his later works references occur at the end of the whole text, including the 3rd edition of the Prolegomena (1967). As has been mentioned already Dr Ranganathan introduced the list of references, at the end of text, as 'Bibliography' in his earlier works (even as late as 1961) but changed over to the expression 'Bibliographical references' in his later works. The device for linking has always been the use of numbers. In the earlier works it was superscript numbers but later on it was changed to numbers in square brackets. The internal arrangement of the references was in alphabetical order by the headings of entries. It can be mentioned here that inspite of the change of name to bibliographical references, Dr Ranganathan did not give up his earlier stand that a list of references is a type of bibliography. As a clean proof to this contention a note inserted at the beginning of the 'bibliographical references' of the 3rd edition of the Prolegomena can be cited. It reads, "This bibliography lists only the documents used by the author of this book". (emphasis supplied).

Three-Column-Reference System

The most significant contribution of Dr. Ranganathan in the matter of style of reference has been his method of which may be called 'three-column-reference'. We are reproducing below some entries from the 'Bibliographical references' of the 3rd edition of the Prolegomena which clearly brings out the 'three-column-reference' system and also some other characteristics.

BIBLIOGRAPHICAL REFERENCES

Note.-

1 The entries in this list should be taken as supplement to those in the succeeding index.
2 Whenever the same author is referred to more than once, the reference is made "expressive" with the help of the abbreviations qtr = quoted in relation to; and rir = referred in relation to.
3 This bibliography lists only the documents used by the author of this book.
4 Column 1 gives the serial number by which the document is indicated in the text.
5 Column 2 gives the number of the section in the text, where the reference to the document is made.

1 Sec ME3 ABDUL RAHMAN, APROZE FATHIMA, and RANGANATHAN (T). Screw production engineering. (Lib sc. 1; 1964; Paper B).
2 Sec LC31 ABDUL RAHMAN and RANGANATHAN (T). Extrapolation in arrays. (Ann lib sc. 10; 1963; Paper C). qtr Number of open arrays in DC Ed 16.
3 Sec KC2 Non-seminal mnemonics. (Annlib sc. 9; 1962; See A42). qtr Parallel schedules in OC.
4 Sec GA44 AMERICAN LIBRARY ASSOCIATION. List of subject headings for use in dictionary catalogue. 1893. rir Difference in meanings of synonyms.
5 Sec HA3 rir Effect of synonyms in alphabetical sequence.
7 Sec AD62 P 544-R. rir Review of classificatory thought.
8 Sec HD7 P 545. rir Faceted classification.
8A Sec XL72 P 548. rir Periodical seminars on classification.

The above excerpt brings out a few interesting characteristics. It can be seen that the references are arranged alphabetically by the headings and the serial numbers (column 1) are assigned after freezing the arrangement. The second column introduces the number of the section in the text where the reference to the document is made. This, of course, presupposes that chapters, sections, and paragraphs in the text are separately numbered. The third section, not only provides the full reference of the document but also mentions in what context it has been referred to. It can be realised that this style not only allows a reader to come from the text to the full reference very easily (with the help of the serial number) but also provides easy access from a reference to its place of mention in the text. In other words this style of reference provides two-way access. It is this quality that has a great promise in view of the prevalence of a concept like biblio-
graphic coupling and the existence of a tool like the Science Citation Index, the bibliographical references have not only attained greater importance in a number of ways but they have also influenced our views about their possibilities. After locating a document through a citation index it becomes a problem at times to find out the exact place of reference and thus see the exact nature of the 'association of ideas' between the citing and the cited document. In such a situation the second column can easily lead one to the exact place of reference. In other words a document can also be 'read', if we may say so, from the end.

Free from Roman Legions

Another characteristic of Dr. Ranganathan's style, that we would like to point out, is that the list of references is delightfully free from those cryptic Roman legions like ibid, op. cit, loc. cit, etc. Dr Shera said about this practice, "...since our friend [Paul Dunkin] was determined to break a crusading lance in defense of sanity in scholarship, we wish he had hurled his spear against the Roman legions of ibid, op. cit., loc. cit., infra, supra, and passim." About the same legions Jane Apostol in her poem 'Scholar's Choler's vividly portrayed the woe of a reader in the following stanza:

"Infra, ibid, vid., vtc.
I chase each reference till I'am diz
Zy down the restless page, then fall
With ante, post, passim, et al."

Bibliographical References