

CORRESPONDENCE

Cost-effective databases for research

H. S. Virk (*Curr. Sci.*, 1998, 74, 397) has given some reasons for the decline in the quality of research in Indian universities. In my opinion, there is one more factor, viz. poor access to information.

Despite the multiplicity of electronic media and improvements in communication facilities, information access in India has not improved. Increasing cost of information products and services and low buying capacity of libraries and institutions are the major reasons for this deplorable situation. These factors, coupled with a low degree of information awareness, have led to a state of information poverty and this affects the teaching and research performance of scientists and scholars, particularly in the higher education sector.

Although the multidisciplinary science database *Science Citation Index (SCI)* has been available since the early 1960s, many Indian institutions did not subscribe to it because its cost was perceived to be high. Furthermore, *SCI* is perceived essentially as a tool to find out the impact of the work of an individual, institution or a country. See, for example, the recent study by Arunachalam *et al.* (*Curr. Sci.*, 1998, 74, 433–441). It is not often recognized that *SCI* is essentially a search and retrieval tool and the citation analysis part is only an incidental bonus. *SCI* is now available in a variety of formats: print, CD-ROM, online and on the Internet. The CD-ROM edition of *SCI* 1998 is priced at about \$ 16,200 (without abstracts) and \$ 20,900 (with abstracts). There is a 50% concession for Indian subscribers. Fortunately in the early 1990s, several inexpensive specialty citation indexes have appeared in the market. All of these are available in

CD-ROM and they come with powerful and user-friendly search software. They cover fields such as chemistry, biotechnology, biochemistry and biophysics, neuroscience, materials science, and computers and mathematical sciences. These citation indexes offer, in addition to the bibliographic details of research papers, abstracts of the papers indexed and the references cited in the source papers which link the current papers to the past papers through content relations to create what one may call a 'web of science'. These databases help researchers identify cognitively and methodologically related documents.

Awareness of citation index databases among Indian researchers is very low as they are available only at selected institutions, such as the Indian Agricultural Research Institute, Indian National Science Academy, Indian National Scientific and Documentation Centre, New Delhi, and the National Centre for Science Information, Indian Institute of Science, Bangalore. The specialty citation indexes are available at a low and affordable price. For instance, the price of *Biochemistry & Biophysics Citation Index* which covers 3300 journals and over 160,000 source papers per year cost just \$ 1170 (approximately Rs 46,000). If a library subscribes to *BBCI* 1998, it will also get the database for 1992–1997 for free. The cost per paper (bibliographic details plus abstract) works out to less than 5 paise! The *Compumath Citation Index* comes as a five-year rolling file and the subscription for the period 1994–1998 is a mere \$ 1090. It covers 500 of the world's leading computer science and mathematics journals and indexes relevant papers from over 7000 leading science and social science journals. All other specialty citation

indexes are available in the range of \$1100–2300 for the eight years 1991–1998. They provide access to several lakhs of current and retrospective documents like journal articles, reviews, and short communications in their specialties and provide bibliographic details and author abstracts.

I wonder why a large number of Indian scientists are not taking advantage of these cost-effective databases. For small institutions where only a few people pursue research, information available in their libraries may be just less than five per cent of the information available at the Indian Institute of Science or the National Science Library at New Delhi. Students from such institutions often go to major libraries for literature search. A subscription to these databases offers an alternative way of information access that may reduce the effort of the researchers chasing the information at a few large institutions.

It should be possible for the researchers to buy these databases by spending less than Rs 60,000 from their project funds. Most researchers have access to desktop computers and CD-ROM drives are available in the market for a few thousand rupees. Funding agencies such as the Department of Science and Technology, Department of Biotechnology, and the University Grants Commission should come forward to allow researchers to use funds provided by them to buy databases. They allow purchase of computers, laboratory equipment and chemicals. Why not databases?

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