

## Science periodicals and consortia formation

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The ever-escalating cost of scholarly periodicals, especially in science and technology, has exercised the minds of librarians. Several measures have been initiated over the years to meet information requirements and circumvent the problems posed by rising costs. These measures have taken the form of cooperation and coordination among libraries in periodicals' procurement and resource sharing, especially in the form of inter-library loan and provision of photocopies. The introduction of the e-journal has offered another measure for meeting the rising cost of periodicals – the formation of consortia for periodical procurement.

Libraries join together to form consortia to negotiate prices with the publishers. 'Library consortia have over the past two years taken on a new role: squeezing better deals out of publishers for electronic licenses' (*Nature*, 1999, **397**, 196). Consortia may be formed for a single title or for a group of titles or for a single publisher, irrespective of the number of titles procured, among the members of the consortium. Consortia formation involves more than just the two players who are affected by this phenomenon of rising costs – the librarians and the users. While forming a consortium, the management also plays an important role, since the policies have to be decided upon and acceptable procedures developed for and by the administration of the organization of which the library is a unit. Basically, as the very first step, a mindset has to be created among all those involved, that procurement through consortia will be worthwhile and that newer methodologies and procedures have to be developed and adopted. Libraries will have to carry out cost-benefit exercises, not just in terms of the financial benefits accruing, but also in terms of the larger number of titles that become available to the users. In fact, a decided advantage of belonging to a consortium is the expanded access to periodicals. Users get access to more periodicals than they would have access to otherwise. The various advantages of e-journals, such as speed

of access, multiple access, access to supplementary materials which cannot be duplicated in print, such as use of multimedia, need no reiteration. For an organization with field stations and extension centres, e-journals are a great boon. Consortia are tools which will aid in exploiting the features of the e-journal as well as in effecting savings. The case of the Indian Institute of Astrophysics illustrates this point. The library has its main office in Bangalore, with branches at Kodaikanal, Kavalur, Hoskote, Hanle and Gouribidanur. Currently, on-line journals can be accessed not only from Bangalore, but also from one more field station, namely Hoskote. It is thus possible to access the e-journal from different physical locations, just by a single subscription of the print journal.

### Factors in consortia formation

Various factors have to be taken into consideration for an effective functioning of a successful consortium. These, if understood and attended to, will greatly facilitate consortium formation, thereby leading to enhanced access to information. Many institutions may feel that their financial contribution may not be commensurate with the benefits they get from a consortium. The importance of cooperation and long-term benefits will have to be appreciated, as otherwise psychological factors can impede the formation of a consortium to a large extent.

### Administrative, accounts and audit aspects

#### *Budget provision*

Generally, when dealing with consortia, the publishers expect a commitment for subscription for some years and in most instances it is understood that it is for at least 3 years. Such a commitment has direct links to the budget provision of a library, since there has to be continuous provision of funds for all the titles committed for the future years. Moreover the libraries will not have the free-

dom to drop a committed title, in lieu of any other new title.

#### *Mode of payment*

Audit generally requires libraries to make payment only against an invoice by a society/publisher or by subscription. In the case of a consortium, the publisher will send only a consolidated invoice to the library which acts on behalf of the consortium and not to each individual library. Rules and procedures may not permit libraries to make payment to this nodal library unless the library itself can raise an invoice, thus acting for all practical purposes as a subscription agent. In such cases, the question of formalizing the consortium might arise, even though it might have been set up to be an informal one.

#### *Release of funds*

In a large consortium consisting of libraries of various departments/organizations, there could be more than one funding agency. Not all funding agencies release funds at the same time. For instance, many libraries face the problem that the funds are released very late in the financial year or additional funds might be released just at the tail-end of the financial year or there might be sudden cuts in the budget. Universities, in particular, suffer from these uncertainties. If this were to be the case, then the nodal library should be in a position to make advance payment on behalf of other libraries and wait for funds to be transferred from them either in the same year or during the succeeding financial year. This may not be a problem when the consortium consists of libraries being funded by a single parent organization as for instance, libraries of the CSIR laboratories forming a consortium.

#### *Funding authorities*

If the funding authorities are different for the members of any consortium, then there will be many different practices/norms for making payment to the

publisher or to the nodal library. These have to be rationalized first and a standard method of transfer of funds acceptable to the nodal library will have to be drawn up.

#### *Absence of a printed copy*

In the absence of holdings physically, the auditors have to be aware that the new forms of information material are not necessarily physical holdings in any form. The right for on-line access costs money.

#### *Access to back runs*

Access to back runs of periodicals will have to be clearly spelt out and publishers will have to provide access even if subscriptions to the periodicals are cancelled at a later date. All the members of the consortium should be provided access even if at a later date, one or more libraries opt out of the consortium for various reasons.

#### *Archiving of periodicals*

At times, archiving of e-periodicals may be done by libraries. A decision/consensus has to be arrived at, as to who is to do it and which software to use. Access privileges and procedures have to be clearly delineated. Expenses related to it will have to be clearly identified.

### **Technical aspects – Automation and networking**

#### *Access to the e-journal*

An advantage of e-journals over print is that many users can access them at the same time. However, e-journals rely on technology and equipment for access. There may be delays in access due to incompatible hardware and software or if connection speed is too slow. Access to e-journals implies the existence of an intranet/internet access. If several people have to access it simultaneously, then there is a need for an intranet, as the access will be through a server that has an IP address. Many laboratories and universities do not have such a network and they are not likely to have one in the near future. Some of them may have dial up internet access through an ISP such as VSNL. In such cases, only

one person/one computer can access the e-journal. If there is more than one account with an ISP from within the same institute (in that different departments have different accounts), then negotiations will have to be done with the publisher for access from more than one account. Further, all the departments in a university/organization may not have an internet account, in which case not all the faculty will have equal access. Moreover, these accounts are renewable and are limited by time or hours utilized. Hence, if they are not renewed, then access to them is not possible. It is essential to know at first if IP addresses are used at access times or passwords. If it is a password-enabled site, then it is possible to access the journal from anywhere. However, the number of simultaneous access has to be agreed upon. Site licenses have to be carefully studied.

### **Subscription to periodicals**

#### *Subscription rates for electronic journals*

A myth that is widely prevalent is that access to electronic information is cheap/free. It is not necessarily so. It depends on the type of information that is being accessed and the sites that are being accessed. Learned and scholarly information, especially in periodicals, continues to be expensive. If the subscription rates for electronic journals are considered, there are several ways in which electronic journals are priced. (i) When the print version is subscribed to, then access to the online version is free, e.g. *Astronomical Journal*. (ii) Even if the print version is subscribed to, an additional charge has to be paid for use of the online version, e.g. *Astrophysics; Solar Physics*. At times, the cost is more than 100% of the print cost, as in the case of subscribing to the print as well as to the e-version of *Nature*. (iii) The online version can be subscribed to separately. (iv) Consortia price offer from publishers to any library which is part of a consortium. The electronic journals are priced in such a way that the members of any consortium will be paying an additional amount of money to access the electronic version of all the journals published by a particular publisher. This additional cost is calculated between 20

and 25 per cent of the total print subscription to journals of a particular publisher held by all the members of a consortium. For example, Tata Institute of Fundamental Research, Mumbai with six centres located in different geographical areas, formed a consortium of the libraries located at these centres for the purchase of Springer online journals. Together they subscribe to 25 print journals of Springer and by paying an additional percentage cost of these 25 print journals, all the members of the consortium are able to access the 400 online journals of Springer. The pre-determined condition is that the members of the consortium should not cancel any of their print subscriptions for a period stipulated by the publishers. The major benefit for the consortium members is that irrespective of the subscription to any one print journal or sometimes even without a single print subscription, the members can access all the electronic journals included in the package. The Cambridge Scientific Publishers have special consortia offers for small institutions and for the libraries in the Third World countries, for all their products. Libraries of smaller institutes in India should take advantage of this exclusive offer.

### **International coalition of library consortia**

The widespread development of library consortia has also resulted in the setting up of an informal group known as ICOLC (International Coalition of Library Consortia) (<http://www.library.yale.edu/consortia/>). The coalition is an informal self-organized group comprising around 140 library consortia in North America, United Kingdom, Germany, the Netherlands, Israel, China, Australia and other countries. ICOLC keeps participating consortia informed about new electronic information resources, pricing, practices of electronic providers and vendors and other users of importance. All consortia anywhere in the world, which are in general agreement with the ICOLC's Statement of Current Perspective are welcome to join the consortia. Publishers are also ready to interact with consortia which are in agreement with the Statement of Current Perspective. The website [www.library.yale.edu/consortia/techreq.html](http://www.library.yale.edu/consortia/techreq.html) provides guidelines for request for

proposal (RFP) and contract negotiations between consortia and the publishers. The guidelines cover technical issues such as content formats; software support; use of multimedia; the ability to capture contents in one or more ways, including printing, downloading, etc.; system architecture, access control and security issues, and system management among others.

E-journals have come to stay and so *ipso facto* have library consortia. Consortia are being organized in India also, such as the ones described earlier and by others like the Department of Atomic Energy libraries, and steps are being taken to organize many more. Their experiences will no doubt help in making the idea of consortia more widespread and in their successful implementation.

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## FROM THE ARCHIVES



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### The Place of India in Pre-History\*

Though absolute dating in time is impossible in pre-history, a geological chronology can be constructed, and at the time when man appeared glacial deposits were being formed in the north, while in the tropics corresponding climatological changes have resulted in deposits the relation of which to those further north is now being investigated.

The evolution of man's brain from lower to higher levels is reflected in the degree of perfection achieved in the tools he used and, as different types of tools form a sequence agreeing with the sequence of geological strata, they afford the best available evidence of the course of human evolution during the early Ice Age, human fossils being fragmentary and very rare.

\*A brief summary of the lecture delivered by Mr T. T. Paterson of the Yale-Cambridge India Expedition, on Thursday, 28 November, under the auspices of the Archaeological Society of South India, Madras.

In Europe the most primitive tools are called Eoliths or 'dawn stones'. From these tools, which are so crude as to be scarcely recognisable as such except to a trained eye, the sequence passes through successive stages of finer and finer workmanship in the process of flaking by which they were made, to more useful artifacts up to those of the Neolithic Age of polished stone which in its turn passed into the metal era. Each stage – Chellean, Acheulean Mousterian, etc. – is named after a type station in Europe, and such cultural stages are well defined and easily recognisable. But the evolution was not smooth, for in Europe two civilisations are found to have alternated, fluctuated and finally merged as the peoples respectively advanced and dominated or fell behind, till at last they were assimilated the one into the other. The first of these groups is called the Core Tool People since they generally used as implements stone cores shaped by the striking off flakes. The second is called the Flake Tool People, since they used as implements flakes struck off from a core – a difference in method of manufacture involving a fundamental difference in psychology. It seems likely that the Flake peoples of Europe were invaders from Asia and the Core peoples from Africa. The Mousterians were probably a mixture of the two, though there were later invasions from Asia during Upper Palaeolithic and Neolithic times.

A somewhat similar history can be traced in Africa. But there the core technique was definitely dominant while the flake technique did not gain much hold except in the north, where Asiatic influence would be more readily felt. In China, on the other hand, all cultures so far studied are flake cultures, the earliest being rather Mousteroid in form but of a coarser type, though lately a core-pebble culture similar to that found in North India has been reported.

The special importance of India for the proper interpretation of the facts of pre-history lies in her position in the geographical center for Europe, Africa, China and Java, as well as in the many artifacts known to occur there and in the Primate remains of the Siwalik deposits which give grounds for hope that humanid remains may eventually be found there also, especially in view of the hypothesis put forward by physical anthropologists that the strenuous climatic conditions resulting from the uplift of the Himalayas were deciding factors in human evolution.

Research in India is also needed to throw light upon the origin of the Asiatic invasions of Europe in Aurignacian and Neolithic times, for it is in India that the earliest proto-Neolithic tools of Asia seem to occur; while the apparent absence of true Asiatic flake cultures from India also calls for further investigation. Though Asia may open the door to a true concept of the pre-history of man, India hold its key.