

Emerging Pricing Models for E-Journals Consortia and Indian Initiatives

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ABSTRACT

The print journals continue to dominate both from users point of view and publishers revenue. The advent of e-publishing has brought a revolution in journal publication, subscription, access and delivery mechanism. Print journals publishing costs include high article processing costs, high production and marketing costs. E-journal production and access costs are increased further due to infrastructure, customer support, IT savvy human resources, etc. While these costs form the base, other pricing factors include number of nodes, multiple campuses, access mode, training, perpetual access, etc. A study indicates that one of the US University Science Library spends 76 % of its journals budget on titles of 10 major publishers like Elsevier, Springer, Wiley, Harcourt, Kluwer, Plenum, Blackwell, AIP, MarcelDekker and Taylor Francis. This holds good for most of STM institutions too. The dwindling library budgets and growing number of journals force libraries to form consortia for accessing e-journals. The old concept 'consortia' means a strategic alliance of institutions having common interests.

Neither libraries nor the publishers have sufficient experience or data to determine the appropriate unit cost of information, the effective return on investment, or the most appropriate economic model for charging or paying for electronic information. There are no universally acceptable e-journals pricing and licensing models. Current pricing models for e-information, which are developing during a period of experimentation, are not sustainable. Although it can not be generalized the learned society publishers are increasingly prepared to make all their non-subscribed journals available to consortia in return for a relatively small extra payment.

Many libraries especially in developing countries are not geared up for accessing e-Journals due to various reasons including user ignorance, infrastructure and funds. While there is an urgent need for changing the mindset of librarians, users and the administrators for subscribing to e-journals in India, a satisfying note is that few forward looking libraries have made a modest beginning in forming consortia. Some initiatives include – Indian Institutes of Management for accessing bibliographic databases, CSIR Laboratories for ScienceDirect, FORSA for accessing Astronomy and Astrophysics journals, Hyderabad Knowledge Park members for J-Gate, INFLIBNET initiative for providing access to six universities for J-Gate and INDEST for ScienceDirect , IEEE Journals, few bibliographic databases for the benefit IITs and IISc.

Some of the pricing and payment constraints specific to Indian libraries include - inadequate funds, single point payment, rigid administrative, financial and auditing rules, problems of defining asset against payment and pay-per-view not yet acceptable

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E-journals and Consortia

The journal has played a major role in the creation and transmission of knowledge as the primary medium of formal scholarly communication and has remained essentially unchanged in form and function for more than three centuries. The first scholarly journal, *Journal des Scavans*, was published in 1665, and was soon followed by the *Philosophical Transactions of the Royal Society*. Despite its benefits to science and scholarship, the paper journal system has been subject to much criticism due to mainly spiraling costs, lack of selectivity, problems with the peer review process and long publication delays. The developments in computers and communication networks, especially World Wide Web have facilitated creation of alternative electronic forms of the conventional paper journal. The e-publishing has brought a revolution in journals publication, subscription, access and delivery mechanism. Out of 1,50,000 serials published in the world >60,000 titles cover scholarly communications. More than 14,000 of them have their electronic versions accessible through Internet; out of which 2,000 titles are free for all. Some electronic-only journals are beginning to demonstrate and exploit the potential of the new medium. The growing archive is searchable, and in html screen form papers have hypertext links from thumbnail figures and photographs to full images, threaded links to create themes and support subject categories, and external links to a database of abstracts. Papers are also available in pdf form for local printing. The next stage should see real examples of multimedia enhancements involving sound, video and simulations, particularly in the fields of biology and medicine.

Print subscriptions still continue to dominate publishers' revenue. Some of the major e-journal databases are ScienceDirect, EBSCO databases, Kluwer online, Springer LINK, Wiley Interscience, IEEE Xplore, Institute of Physics, MCB Emerald Library, Cambridge Journals Online, Academic IDEAL, OCLC's First Search Service, UMI's Proquest, JSTOR, etc. The major players in the e-Journals publishing, marketing and distribution include-

- Primary publishers
- Aggregators
- Vendors
- Subscription agents
- Document delivery agencies
- E-print systems

The Library Managers are required to cope up with the increasing demands of faculty, students and researchers against all odds like dwindling budget and decreasing staff. Librarians are forced to work together due to economic realities and technological possibilities paving the way for forming subscription clubs for e-journals, not just clubs but strategic alliances with broad based objectives. The consortia can be defined as a strategic alliance of institutions having common interest. The main aim of a consortium is to achieve what the members of the group cannot achieve individually. The developments in information retrieval system and faster access technologies have enabled the libraries to come together for licensing the information available in digital form.

Consortia Goals

The consortia being an association of like-minded libraries and in the present context to provide access to e-Journals and databases. It can have its own structure of governance and can act as a corporate body on behalf all members with set goals and benefits mentioned below.

- Increase the access base – More e-Journals
- Rational utilization of funds - A little more pays a lot
- Ensure the continuous subscription
- Qualitative resource sharing - Effective document delivery service
- Avoid price plus models - Pay for up-front products not for R&D
- Enhanced image of the library - Visibility for smaller libraries
- Improve existing library services - Boosting professional image
- Harness developments in IT - Facilitate building digital libraries
- Cost sharing for technical and training support
- Increase user base – Access from desktops of users

A library consortia formation can be at local, state wide, national and inter institutional level for making available the resources and services available both within the premises of members and outside for the benefit of members.

Consortia Models

Consortia models are not well defined and vary depending upon types of libraries participating, parent organizations they belong to, subject areas they cover, purpose of coming together and so on. Consortia could be a club of highly decentralized or highly centralized organizations. The characteristics of consortia model are also influenced by other players like publishers and vendors. Highly decentralized models suffer due to non-availability of common agenda, no external funds, central sponsor and central staff. On the other hand, highly centralized models overcome these lacunae and also get maximum discounts. *Participants oriented models may be a group of organisations of a particular geographical location, a discipline or the ones from same parent organisation. Purpose oriented models may serve to give access to e-journals and other contents, avoid duplicate acquisitions or train library personnel. Client oriented models could be according to the age of patrons like children and senior citizen, according to interests like sports and music or according to educational background like technical and professional.* Members of a consortium may belong to different parent organizations, following different administrative rules. The subject areas covered, geographical location and user categories are other variations. The other players in the game like publishers, aggregators, vendors, subscription agents and document delivery centers may have their own policies. As a result one has to look into number of issues, be it strategic or technical or practical.

E-journal Models

- E- journal continues to coexist with its print version.
- E-journal replaces its print version.
- E-journal gets value addition, but continues to coexist with print.
- Print version plus abridged e-version
- E-journal only.
- E-journal with a facility supply individual articles.
- Delayed e-version than its print equivalent.
- E-version first and then print.

Price Influencing Factors and Publishers' Issues:

Neither libraries nor the publishers have sufficient experience or data to determine the appropriate unit cost of information, the effective return on investment, or the most appropriate economic model for charging or paying for electronic information. Publishers investing on new titles is difficult as it may take a couple of years to make a profit, due to fast changing world in IT environment. How that cost concerned could be absorbed is crucial to the future of online journals. Should the cost be borne by the reader or by a subscriber on the reader's behalf? Should it be contributed by the author? There is little chance that publishers will forsake the long-established practice of generating income from subscriptions. A more radical approach is 'pay-per-view', where readers might be requested to bill an account each time they elect to view, or download, a paper from a given journal or publisher. The costs or barriers to the reader's use of journals must be reduced. One way of doing this may be author page charges. This has long been an accepted method of funding paper journals in some fields, although the practice may be less popular than it was. Some electronic editions will continue to offer free access, but this will either be for an experimental or promotional period, to selected samples or parts of the full journals. Some electronic-only journals are supported by research or educational grants, and some by appropriate associations or societies, but by its nature this type of funding is often short-term, and the gap still has to be filled. Some publishers generate sufficient advertising or sponsorship to support their online journals. This system is possible for journals in very few disciplines like medical sciences. It is fair to assume that most electronic editions will require a subscription to view, even if that subscription is in essence to purchase the paper copy.

There is a need for striking the balance between cooperation and competition both among libraries and among publishers. Both publishers and libraries should look for sustainable economic models based on values. On one side, many of the libraries especially in developing countries have not geared up for accessing e-Journals due to various reasons including user convenience, infrastructure and funds and on the other, still 80% of the titles have to see their electronic versions, although one can find websites for most of publishers providing general information like subscription details, instruction to authors etc The e-journal pricing through consortia varies from publishers to publishers and from same publishers to different library groups depending upon number of factors and issues listed below.

Influencing Factors	Publishers Issues
<ul style="list-style-type: none">Quantum of businessNumber of consortia members	<ul style="list-style-type: none">Free titles on InternetFree access against print subscription

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|--|--|
| <ul style="list-style-type: none"> • Types of institutions • Contract period • Number of IP enabled nodes • Number of campuses • Value added services • Rights to archive • Perpetual access • Training facilities • Multi year agreement | <ul style="list-style-type: none"> • All titles of a publisher for fixed fee • Surcharge on print subscription • Discounts for electronic journals • Capped annual inflation • Discounts on non-subscribed titles • Access to subject clusters of journals • Protection of current revenue • Uncertainty of new subscription • Single point payment |
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E-journals Pricing Models

Unfortunately, as of now there are no universally acceptable pricing and licensing models for e-Journals. Current pricing models for e-information, which are developing during a period of experimentation, are not sustainable. Although it can not be generalized the learned society publishers are increasingly prepared to make all their non-subscribed journals available to consortia in return for a relatively small extra payment. The following models are in practice depending upon the environment.

- Bundled – Free with print
AIP, APS, AMS, Elsevier, Wiley
- Print + surcharge on electronic
ACS (20%), OSA (25%)
- Electronic only
Small increase (ACS 105%)
Same price (OSA)
Discount from print (AIP 80%, AMS 90%)
- Totally unbundled – No discount for both
JBC (P- \$ 1600, E- \$1200, P+E- \$ 2800)
- All titles of publishers with print optional
- Deep Discount Pricing
- Subject clusters
- Pay – per – view
- Usage-based Pricing
- Free completely – Differently funded
- Extra fee for software
- Extra for value added services
- Consortium discount
- License membership fees
- Subscription to core titles – Rest pay-per-view
- Pricing based on FTE, concurrent users
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A Lot More for a Little Extra

- Access to all titles of publishers for little surcharge
- Multi year agreements with fixed annual price cap
- Users happy – Wider access
- Publishers happy – Guaranteed revenue, greater visibility of titles
- But what about non-major publishers?
- Discount on multiple print copies

Indian Scenario

The major research and development organizations like CSIR, ISRO, DRDO, DAE, ICAR, ICMR, DBT etc spend annually a huge amount around Rs. 150 crores towards library acquisition. In spite of this, they are not in a position to maintain the subscription of core journals. The high budget libraries attached to Indian Institute of Science, BARC, IITs are forced to get themselves satisfied with the maximum of 2000 titles as against minimum of 8000 in similar US organizations. Majority of the 250 Indian university libraries except those of IITs and Central Universities are facing very serious financial crunch even to subscribe to bare minimum number of journals. These circumstances naturally force Indian universities and R&D organizations to form the consortia for accessing more and more e-journals.

There have been few attempts over the years facilitating resource sharing among Indian libraries. The NUCCSI, National Union Catalogue of Current Serials in India of INSDOC has been a good source in this direction. However it needs little more efforts in updating. Few city-based networks like ADINET, BONET, CALIBNET, DELNET, MYLIBNET and PUNENET and also by the national level INFLIBNET are developments in Library co-operation. The DELNET provides access to good number of databases and union catalogues of both books and journals of good number of libraries.

9.1 New Consortia Initiatives

a. Consortia for IIMs

Six Indian Institutes Management have formed a consortium and jointly approached the publishers of e-journals and databases in the area of Management, Social and Behavioral science source. They have been giving IP enabled access to e-journals – Elsevier (247 titles), Blackwell (268 titles), Kluwer (33 titles), Wiley (3 titles). Apart from 25 titles free against print subscription, 2300 titles as a part of EBSCO databases and 800 titles as a part of *ABI Inform database* have been made available to users of IIM libraries electronically.

The usual terms like maintenance of print subscription with the identified base year, 10-15% surcharge over and above print subscription did apply to this consortium. They also provide access to 13 bibliographic databases selectively to different IIMs depending upon their subscription to the titles like *ABI Inform*, *EBSCO*, *ECONLIT*, *GMID*, *Psycinfo*, *Sociofile* etc. IIM Bangalore, alone claims the annual savings of Rs. 16.42 lakhs for accessing bibliographic databases. IIM consortia did not find any difficulties dealing with the publishers as they were able to make payment directly to the publishers individually.

b. CSIR Consortia

The Council of Scientific and Industrial Research has 40 national laboratories carrying out R&D work in the areas of Engineering, Biological, Chemical, Physical, Environmental and Information Sciences. Put together these laboratories subscribe to

about 3100 unique titles by spending about Rs. 25 crores. More than US \$ 1.3 million is spent on Elsevier titles alone. Based on the recommendation of the task force and the negotiation committee appointed by CSIR all 1200 Elsevier e-journals have been made available to all 40 laboratories since July 2002. The funding being from single source, CSIR consortia did not face much difficulty to make the payment. However there was a delay in signing the agreement in sorting out the problems concerned to access rights, archiving, fixing the base year etc. Few laboratories like NAL, NCL, IMTECH, NIO, RRLT have been providing access to Elsevier titles since quite some time. The negotiations with other publishers like Kluwer (550 titles) and Springer (450 titles) is in the advanced stage. Attempts have been made to make available the J-Gate Custom Contents for Consortia (JCCC) to all laboratories.

c. FORSA

The Forum for Resource Sharing in Astronomy and Astrophysics, the consortia of Raman Research Institute, Indian Institute of Astrophysics, Tata Institute of Fundamental Research, Inter University Center for Astronomy and Astrophysics, National Center for Radio Astrophysics and Physical Research Laboratories has given access to 25 e-Journals of Kluwer to their users with the payment of 12.5% over and above the print subscription. This consortium has successfully negotiated with publishers of *Nature* to provide access to its e-version at a price of almost 1/3 of the list price.

d. INDEST

The INDEST is consortium of all Indian Institutes of Technologies, IISc and few other institutes through the Ministry of Human Research and Development, Government of India is in the advanced stage for providing access to e-journals of Elsevier Science and IEEE. While this in the pipeline, few institutions like IIT, Chennai have already given access to Elsevier e-Journals with an understanding with the publishers.

e. INFLIBNET Initiatives

INFormation and LIBrary NETwork has taken the initiative to provide access to e-Journals as well JCCC. Initially few selected university libraries, JCCC a product of private initiative provides access to contents of all the journals to the subscribed by all members of consortia along with database search facility and links to the full text articles depending upon the members' arrangement with publishers concerned. The most attractive feature of the service is automatic generation of e-mail request for Inter Library Lending among the consortia members.

f. ICICI Knowledge Park, Hyderabad.

ICICI Knowledge Park at Hyderabad has signed an agreement with Informatics India Ltd to provide access to J-Gate Custom Contents for Consortia service to four Hyderabad based and one Pune based R&D institutions. Initially this service is free for the members with the objective of making it self-sustaining in the later stage.

g. ISRO Initiatives

The resource sharing initiative taken by ISRO libraries by avoiding duplicate subscription to bibliographic databases is expected to result in savings of Rs. 41 lakhs per year. Further, the proposed cancellation of duplicate journal titles by its centers is likely to save the surplus amount that could be used to provide access to e-journals for the benefit of the all centers. A move is there to form formal consortia for providing access to e-journals and also J-Gate Custom Contents for Consortia.

Consortia Constraints Specific to Indian Libraries

- Lack of awareness about consortia benefits
- Slow acceptance of e-information by the users.
- Difficulties in changing the mind setup of librarians
- Maintenance and balancing both physical and digital library
- Inadequate funds
- Single point payment
- Rigid administrative, financial and auditing rules
- Problems of defining asset against payment
- Pay-Per-View not yet acceptable
- Uncertainty about the persistence of digital resources.
- Lack of infrastructure for accessing electronic sources
- Unreliable telecommunication links and insufficient bandwidth
- Lack of appropriate bibliographic tools
- Lack of trained personnel for handling new technologies
- Absence of strong professional association
- Big brother attitude

Conclusion

While print journals continue to dominate both from users point of view and publishers revenue, e-Journals have made an all-round big impact on economics, access and user

base. Pricing models for e-information must result in a significant reduction in the per use of information. Pricing should be market- based not formulaic. The underlying prices should be publishers' responsibility. Consortia models are different but they share many common interests. Pricing archiving and copyright issues are yet to be tackled globally. Pay-per-view is not yet popular. Libraries and providers must jointly develop and agree upon what constitutes an effective measure of the use and value of electronic information so both parties can demonstrate better returns on investment. For any form of consortium contract to work, it must be fair and equitable to both parties. To reap the benefits of e-information and consortia movement we need to overcome the rigid administrative and audit rules India, we need to network the minds of administrators and librarians. Consortia efforts are time consuming, frustrating and difficult to build and sustain. But still, they are potent, social, economic and political forces in reducing the unit cost of e-information and increasing the resource and user base and help libraries to achieve more collectively than they could accomplish individually. It is satisfying to note that few librarians in India have taken up consortia initiatives to provide access to e-journals, which probably is the only way to satisfy increasing information requirements of vast number Indian academic and R & D workers.

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APPENDIX

ACRONYMS USED

ADINET	Ahmedabad Library Network
ASSIST	Asian Society for Social Services, Information Science & Technology
BARC	Bhabha Atomic Energy Center
BONET	Bombay Library Network
CALIBNET	Calcutta Library Network
CSIR	Council Of Scientific & Industrial Research
DAE	Department of Atomic Energy
DBT	Department of Biotechnology
DELNET	Development Library Network
DRDO	Defence Research & Development Organization
ICAR	Indian Council of Agricultural research
ICMR	Indian Council of Medical Research
IIM	Indian Institute of Management
IISc	Indian Institute of Science
IIT	Indian Institute of Technology
IMTECH	Institute of Microbial Technology
INSDOC	Indian National Scientific Documentation Center
ISRO	Indian Space Research Organization
MYLIBNET	Mysore Library Network
NAL	National Aerospace Laboratories
NCL	National Chemical Laboratory
NIO	National Institute of Oceanography
NISSAT	National Information System for Science & Technology
PUNENET	Pune Library Network
RRLT	Regional Research Laboratory, Thiruvananthapuram