
MANAGING AND HANDLING ELECTRONIC JOURNALS : SOME ISSUES

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Abstract

Libraries are moving rapidly towards the electronic method of storage and retrieval. Electronic journals are being added to the Library collections at exponential rates. Today e-journals offer flexibility and recent developments have enhanced the visibility of these by integrating all journal titles in any format. Individual libraries today are facing issues to make these e-journals accessible to users and consortia based subscriptions to e-journals has developed as a viable solution for increased access, with some cost savings. This calls for handling and management of e-journal subscriptions. This paper outlines some of the processes of handling and managing e-journals in individual libraries as well as Consortium.

Keywords : Electronic Journals, E-Journals, Library Consortia, Journals Management.

1. INTRODUCTION

In the recent years, Internet has been the major force, which has led to the electronic versions of library collections, like books, journals, CD-ROMs. Electronic journals have grown explosively, as have a variety of other electronic phenomena and are the most vital components in a technological revolution. Today the library's electronic subscription include e-journals, e-books, Scholarly databases, e-reference works, value added information portals and so on. E-journals form a major part of the digital collection, which the libraries in recent times are subscribing to.

The introduction of electronic publishing has profound and continuing impact on library and information collections and services. Now libraries and information centers have to deal with not only print journals but their electronic counterparts and exclusively, full-text electronic journals as well. E-journals have proved powerful tools in this electronic environment for teaching, learning and supporting research in all the academic and special institutions.

Conventionally libraries were well equipped with only printed journals, but the rapid information communication technology and digital revolution made it possible for their representation in electronic figure, which in turn has added to the challenges on the part of library professionals to cope with such technological advancement. Thus the management issues for handling of the electronic journals have crept up. It is necessary to know the basic technical skills and procedures for managing the e-journals in the libraries.

Publishers are offering subscriptions to these journals regardless of location or format. Many e-journals service providers and aggregators have emerged, like catchword, Ingenta, Elsevier / Science Direct, Galenet, Highwire, ISI, JSTOR, Lexis-Nexis, OCLC/First Search, Ovid, Silver Platter, Subscription cum aggregators like Ebsco and Swets, portal cum aggregators like Biomednet, J Gate and bibliographic cum document delivery services like Infotrieve are major E-journals providers.

2. ELECTRONIC JOURNALS

Electronic journals are often referred to interchangeably as "Electronic serials" "Online journals" and "Electronic periodicals". No generally accepted standard definition exists for electronic serial publications. The terminology itself and the definitions have varied over time. Before the terms "Electronic Journals"

and “ e-journals” came into vogue, a variety of terms including the “Virtual journals” the “Paperless journal” and the online journal were used. Some authors simply call an electronic journal as a publication that is delivered to the subscribers through a computer file. They have almost all the characteristics of print journals and are available either online or offline or both.

D. Scott Brandt offered a definition applicable to early generation e-journals, “ In its broadest definition, an electronic journal is some grouping of information which is sent out in electronic form with some periodicity”. It was sometimes called as a networked journal. Gail Mcmillian states “any serial produced, published and distributed nationally and internationally via electronic networks such as Bitnet or the Internet”.

According to other definitions an electronic counterpart of the print journal is not considered a genuine e-journal. James and cook define e-journals as a “ digital periodical that publishes on the Internet and www”.

E-journals differ from e-serials in a sense that e-serials may be defined broadly as any journal, magazine or newsletter, which is available over the Internet. There is at times confusion between electronic journals and electronic publishing. Some consider any communication via the electronic medium to be electronic publishing, but they are not synonymous, as e-publishing may be, e-mail communication, or listservs, or newsgroup messages, but e-journals are those that have been peer-reviewed and have a collection of scholarly articles.

Getting access to E-journals involves various modalities viz. identification of journal, selection, correspondence with publisher/aggregators, signing the agreements, acquiring and finally providing access to the users.

3. ACCESS TO E-JOURNALS :

There are various model in accessing e-journals prominent among them are :

1. Free access with print Subscriptions: Free access is available to those titles for which the library subscribes to the print versions.
2. With some additional charges: some electronic versions of printed journals are available with additional charges.
3. Selective Access: The subscriber chooses a few e-journals from the publisher and pays for them as per agreed terms and conditions.
4. Consortium based Access mode: The member institutions need not subscribe the journals on ownership basis but could access them on internet on payment of access fees. The access fee is determined on the basis of total journal subscription order. Generally the larger of subscription order the less the access fee.
5. Free Access Journals: These journals can be accessed without any subscription charges.

4. FEATURES OF ELECTRONIC JOURNALS :

Compare to Print Journals / E-journals have added advantage. Some of the Important features are :

- Multiple access simultaneously is a strong feature that an e-journal provides.
- E-journals are accessible to all users regardless of geographical location through Proper compatible software and browser services.

- It does not require time-consuming printing and mailing process, therefore an e-journal take less time to publish and distribute.
- No space restriction i.e. an e-journal can publish a greater number of articles compared to the print counterpart.
- Occupy very little space if stored in a CD-ROM.
- Can include sources, video, and interactive and 3 dimensional models. E-journal can publish colour figure and graphics at no extra cost.
- Users can access individual articles by making pay-per-view i.e. pay for the required articles, if they do not want to subscribe to the entire journal.
- Some online journals can be accessed without paying any charge.
- E-journals can be distributed more economically than the paper ones, because the main costs of preparing the text, the review process and other such procedures are not as capital-intensive as the costs of printing and mailing print copies.
- Interaction by means of letters to the editor and opinion forum is a dynamic feature of an e-journal. Some journals include at the end of every paper a forum where readers and authors can exchange opinions. An electronically published article can very easily contain a link, which facilitates e-mail communication with the author or the editor.
- E-journal can contain hyperlinks to cited articles and other information sources such as related journals or websites.
- Searching facilities in e-journals are very effective and fast. E-journals provide excellent search facilities with every issue in which user can search articles not only by title, author, keyword but can also use Boolean operators for searching.
- E-journal is never missing from the shelf, and several people can read the same article at once from separate workstations.
- Ludwick and Glazer States “ the ability to easily locate use of electronic journal articles through user sessions or “hits” is a welcome benefit for scholars interested in documenting impact of their scholarly work for promotion and tenure committees”.
- Usage statistics can be generated by using accepted standards (counter)
- Cross reference of references can be viewed.

5. ISSUES RELATED TO HANDLING AND MANAGING E-JOURNALS

Basically three main issues which relate to managing and handling of the electronic journals falls under following subheads :

- Selection related issues.
- Acquisition related issues.
- Access related issues.

6. SELECTION OF ELECTRONIC JOURNALS

Selection is obviously the most important part, which require judicious thinking and planning on the part of Library and Information professionals. The selection highly depends on the institution or organization's objective and the type of user community the library has to serve.

Some methods for identifying e-journals include: Serendipity when surfing the net, staff or user suggestion, reviewing the e-journal provided by other libraries, Publish advertisements, published reviews etc.

The Library professionals will have to look into the following questions when it comes to selecting electronic journals for its various users.

1. What does the selection of any journal mean?
 2. Who will do the selection?
 3. What selection procedure is used?
 4. What selection criteria will be used?
 5. How are titles candidates for selection identified?
1. Selecting a print journal is simple whereas e-journal selection requires different actions in different contexts. Selection relies on the value of the journals for the user community and decision to ease patron access i.e. making patron access to the chosen resource easier than the other Internet resources. Selecting an e-journal involves the following actions :
 - Placing a paid subscription.
 - Assigning a license agreement.
 - Accessing a title if required on a pay-per-use basis.
 - Backup and archives
 - Determination of access through Web, CD or DVD = File Format
 - Providing access through A www site / homepage.
 2. Selection is to be done by the Library and Information professionals through deep study regarding the relevance of the journal in context to the institution or organization and keeping in view the requirements of the users from time to time.
 3. There can be various selection procedures. Today various aggregators and vendors provide e-journal access services. They are sometimes willing to let the library "try out" a product. This is one of the suitable procedures, when a library is close to taking a decision of the journals. Trial period help eliminate the guesswork in selection of the e-journal.
 4. Numerous Internet resources can assist with the identification of electronic journals on the Internet. There are a number of selection tools available in print and over the Internet. Many of the print journals already subscribed have an electronic equivalent and the access is provided free with the print subscription. Various directories for the selection of e-journals are available, like the ARL's directory of electronic journals. Internet tools like the so-called electronic journal collections on the Internet can be very useful for identification process.
 5. The micro evaluation of e-journals to determine its intrinsic quality and characteristics forms the main basis of the selection criteria. Technical compatibility with the library's hardware and software, user interface, the amount of training required, whether the journal is archived, and the e-journals data format are some criteria's to be used.
 - Various directories and guides for the selection of e-journals are available on the Internet, some include both free and fee based including all the subjects.
 - The "Ejournal sites guide: A meta source" offers links to sites that collect e-journals [[http ://www.library.ubc.ca/ejour](http://www.library.ubc.ca/ejour)]

- CIC e-journal collection [<http://ejournals.cic.net>]
- DOAJ (Directory of open Access Journals) provides about 1,385 free online journals covering all subjects and language. [<http://www.doaj.org/>]
- AMDECO.com [<http://www.freemedicaljournals.com/>] provides free medical journals over the Internet.
- With the advent of Internet many publishers and organizations are making available a sample copy of their journals on the web and anyone can access the sample copy from anywhere at any time. e.g. Major publishers who offer E-journals are Taylor and Francis- SAGE, Springer and Kluwer, Black Well, CUP & Oxford University Press.

6. ACQUISITION RELATED ISSUES :

Acquisition of E-journals Includes various complicated issues which needs to be half properly. Some of important issues which needs to be addressed are :

- **Acquisition** : Unlike print journals, which are purchased for permanent ownership, for many fee-based e-journals the library is simply licensing access rights. The acquisition of e-journals calls for the following functions:
 - Determining the price.
 - Negotiating with the vendors/aggregators.
 - Completing the license agreement.
 - Encumbering the funds.
 - Recording the order.
 - Verifying the title can be accessed or not.
 - Communication with vendor if it cannot be accessed.
 - Copyright
 - Preparing an invoice for payment.
- **Ownership/ Access rights**: Unlike the print versions, e-journals have the problem of ownership. Print versions when discontinued, retains the previous issues before discontinuing, whereas in case of e-journals sometimes they may not be available for access or cannot be retained when discontinued. While signing the agreement library should ensure perpetual access.
- **Licensing**: A license usually takes the form of a written contract or agreement between the library and the owner of the rights to distribute information. Typical licensing issues include method of calculating payment, restrictions on use, and what happens upon termination etc. Every library needs expert staff and an office that handles and maintains a file of license agreements. It is necessary that the professionals closely review the agreement and clear all the doubts at the time of signing the agreement.
- **Budgeting**: Most of the journals initially are free with the print journals. But in the recent times it has been seen that most of the publishers are discontinuing the print based free access. In this regard budgeting is a major issue. Moreover the proportion of e-journals that are free will inevitably decline. There are two theoretical approaches to budgeting,

1. Subject based: where the e-journals will be funded from the budget meant for serials.
2. Format based which implies separate budget for e-resources.

● **Pricing Options:** E-journals cost more than their print versions. Publishers of e-journals indicate that the higher price is attributed to the need to provide and maintain a search engine. There are dual pricing structures for many online journals i.e. separate for individual and institutions.

Another pricing mechanism is by size of the service population, frequently based on the number of library users. It is called Full time equivalent (FTE). This is probably one of the most costly approaches for the libraries.

Transaction based fees based on the number of transactions, is another pricing option, that can derive up the cost of e-journal for the library. This approach is less costly than the FTE model. A drawback of this model is that the library is never certain what its costs will be. The amount may be shocking for the library, if the use has not been monitored carefully.

The other pricing models can be divided into the following categories:

1. An annual fee for unlimited access.
 2. The price model in which the library subscribes to a journal in print format and additional fee is charged for electronic format.
 3. Library subscribes to electronic versions of journals and pays extra for the print version.
 4. Charge per connect time, which includes additional charges for downloading etc.
 5. Payment per potential user, based on institution's size.
 6. Payment for the article required i.e. pay per –article basis.
 7. Consortia pricing, for a group of libraries.
- **Weeding and cancellation :** Weeding of e-journals could be deciding to no longer provide access i.e. the journal can be stopped. This has to be done keeping in view the user needs. If the library has a dual print and electronic subscription, then it could be decided to cancel the print version keeping in view the cost or budget and space on self. A library presumably would not wish to cancel the print subscriptions until it had confidence in archiving strategy for electronic ones. The content of electronic publications will be lost from the scholarly record if appropriate archiving strategies are not developed.

7. AGGREGATION AND AGGREGATORS

Today most electronic journals are available via aggregator's gateways. The same journal may be available in more than one aggregator's products. An aggregation is defined as a collection of e-contents in full-text, packaged and sold as a single product, which is accessible to users by means of a single user interface and has a comprehensive search system. Aggregators act as a mediator between publishers and subscribers for providing online access. They manage the electronic resources and provide online access to e-journals published by various publishers. The work of aggregators involves:

- Taking rights from the publisher.
- Develop database for such journals with full-text for articles.
- Provide search and link facility.

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- Provide access to contents via abstracting and indexing services.

Aggregators provide access to thousands of online journals from leading scholarly, academic and business publishers and provide fast and reliable access from a global network of servers to users around the world. Some aggregators provide free services as the publishers fund them.

Aggregators also provide access to the articles through pay per view for such journals not subscribed by the libraries. This allows libraries and even individuals to have access to the desired articles and pay by credit card etc.

Aggregation has the following benefits:

- Seamless access is offered in the form of single user interface, cross journal searching and reference linking within the aggregation.
- A single license to negotiate, a single access method and a payment in a single vendor offer simplicity in maintaining single subscription.
- Through negotiation the aggregator's lowers the overall costs and at the same time provides access to larger amounts of information.
- Readership of journals is expanded and libraries access to other materials provided with subscriptions.
- Aggregators offer price stability.
- One very unique feature is that through accessing their administration pages, aggregators provide sophisticated usage statistics to libraries, which helps in judging the use of e-journals.
- Provision of free e-mails and alerts of new articles to keep the users up to date with the latest research is a special feature provided by the aggregators.
- Remote users are benefited for having access to the required information.
- Archive of the e-journals subscribed during the period of the agreement is made available.

Some negative aspects noted are that no single aggregators include all the journals required. A publisher may limit the publication of full-text in only one aggregation. Aggregators frequently change their journal lists or the years of coverage without notifying the subscriber, and finally library loses control over the collection. Some example of aggregators are : EBSCO, GALE, INGENTA, SWETS & JGET.

8. PROVIDING ACCESS: ISSUES AND PROCEDURE

Unlike the print subscriptions e-journals require more set-up steps. In the case of e-journals it has to be assured that the technical issues have been addressed and sorted, before the service is implemented. If the access is the web based and domain in nature, providing IP ranges is fairly straightforward. However, password verification is a requirement of some systems, and libraries have to decide who will have access to these passwords within the institution or organizations, will users be logged on individually, or will certain users such as faculty members be given passwords to use as needed. Libraries must also consider that, if anything will appear in the libraries OPAC, will the OPAC reflect just title, electronic address or both. Will there be a link in the OPAC or the library website. If the journals are accessible from offsite, whether through a proxy server or other means, that support exists in the library and the institution for offsite users. Moreover staff will need time for familiarization and training for using the electronic resource and finally providing access. Broadly access can be ensures either through IP ranges or login and passwords.

Multiple IP Addresses: is a group of Internet protocol (IP) addresses. Every institute and organization, libraries having its own web servers sets a single or multiple IP addresses from their internet service provider (ISP). It is also called as static IP address or group of addresses, which are unique in the Internet domain. This number or numbers provided to the publishers at the time of registration will enable the librarians to get online access which is domain restricted, in other words member can access the journals only within their organizations. Whenever the request for article is made, the server at the other end recognizes the request by IP address of the sender. Access is denied in case of mismatch. Most of the publishers prefer to provide access through this method. However, the library not having its web server may seek access through the user name and passwords.

Password Access: Accessing journals through passwords has a plus point, that the members can access the requirements from anywhere, however the misuse of passwords is a consideration. The best option for the access is through IP address. The member need not always remember the password and secondly the access is restricted only to the domain thus preventing unauthorized use.

9. CONSORTIA BASED SUBSCRIPTION TO ELECTRONIC JOURNALS

Vast growth of electronic journals across the world and growing technology and the resource sharing activities led to consortium. A library consortium is a collective activity of a group of libraries towards a common goal of resource sharing. Consortia based subscription to e-journals is a viable solution in order to increase the access of e-journals across the sharing institutions at a lower cost. The followings are the benefit of consortia purchase of journals:

- Provide access to wider number of electronic resources at substantially lower costs.
- Research productivity of all institutions is improved with the increased access to International databases and full-texts of journals.
- Offers reduced attrition, improved income stability, incremental revenue for the publishers.
- Access to otherwise unsubscribed resources.
- Open-ended venture where Institutions can join and get the benefit of not only the lower subscription rates but also the favorable uses and conditions.
- Sharing Institutions have less pressure on space requirements for storing and managing print-based e-journals.
- It provides scope for electronic archives, availability and monitoring of usage statistics.
- Effective document delivery through a single interface and access point.
- In India the largest Science, Engineering and technology consortium is INDEST funded by MHRD. Institutions such as IISc, IITs, IIMs, NITs, RECs, IIITMs, NITIE etc are beneficiaries of it.
- The largest academic library consortium is UGC-INFONET.
- CSIR has initiated efforts for libraries in its several libraries.
- FORSA : a consortium of Astronomy and Astrophysics Libraries.

10. MANAGING CONSORTIA BASED SUBSCRIPTION TO E-JOURNALS

- **Identification:** sharing members will have their own list of journals. Identifying the most suitable journals that all the members agree upon is more or less a difficult decision. It requires considerable care, effort and judicious involvement of the members. Selections are to be made on their usability to their respective institutions.

- **Procurement policy:** If a consortia is formed out of diverse group of member organizations, evolving a common policy for subscribing e-journals and managing them calls for a major challenge. It calls for transparency, protection of interest of the sharing members, fair trade practices, openness as a basis for evolving the policies and procedures.
- **Negotiation and pricing:** Negotiation is carried out with the publishers, agents, vendors, and aggregators. It forms an important task to attain maximum benefits for the consortia. It calls for better deals. As there are no standard practices for pricing, publishers are invited for negotiations and asked to offer their best prices to the consortia. The price offered should be economically viable for participating libraries.
- **Licensing and Agreements:** Licensing is a legal method for subscribing e-journals access, which allows only licensing of the content or product for a stipulated period of time, which has several restrictions or bindings on the licensee. All the sharing partners should abide by the license and sound agreements fostering benefits for consortia.
- **Technology Infrastructure:** Appropriate technical infrastructure and communication infrastructure is required for proper delivery of e-journals. It is a essential requirement for the participating libraries.
- **Access Infrastructure:** Access is the basic necessity for e- journals in consortia environment. Access authentication could be user ID / password based or IP address based.
- **Monitoring Usability:** Monitoring usage is measured in terms of usage, usability, which provide and determine the success of any consortium. Most publishers maintain detailed usage statistics. Usage statistics is used to determine project viability and cost effectiveness of consortia based subscription of e-journals.

11. CONCLUSION

Electronic journal is probably the wave of the future but perhaps a more distant future than technology enthusiasts would have us to believe. How libraries will handle the ever-escalating costs of journals, regardless of format, is something to ponder seriously. As the costs of journals are rapidly increasing and budgets are reducing in the libraries, Internet is becoming a useful tool for accessing e-journals, librarians should maintain an index of subscription of e-journals, other information sources as well as freely available journals.

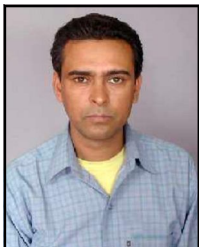
The rapidly changing external environment complicates management of e-journals as far as the technology is concerned. The e-journals represent one of the largest and most exiting challenges confronting contemporary librarians. The Internet, the numbers of formats are the main concern that calls for a sound policy as regards the management issues. Thomas E. Nisonger views "Planning for management of e-journals in libraries is like shooting at a moving target".

Access to e-journals is very useful to both the librarians and users as problem of missing issues or delays not arise. Most important, libraries seeking online accesses to make the subscription agents to forward payments without delay, which in terms will ensure timely renewal of subscriptions. One essential thing is that e-journals should only be opted if the library has the required infrastructure. There are a number of free and fee based useful e-journals published but lack of awareness, difficulty in searching and technical difficulty are basis regarding e-journals. It is a good service to identify all the free e-journals and to provide access to such journals through the library's homepage or website

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