STUDIES ON SERIALS MANAGEMENT IN LIBRARIES: A REVIEW

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Abstract

Serials are very important information sources in Libraries and information centers. It is very important for students, teachers and researchers. Libraries are conducting studies on serials, its acquisition, organization, use and maintenance as part of serial management in libraries. These studies are very useful for library professionals to improve serials management in libraries. This is a literature review study on the serials management in libraries. It discusses the works published in the form of books and journal articles. It also covers the studies on pricing, access, management, archiving, etc. These studies will be highly useful to those who are engaged in the serial management work in libraries and information centres.

Keywords: Libraries. Serials Management. Pricing. Open Access. Archiving.

1. INTRODUCTION

Serials are important sources of current information. Nowadays all academic libraries are creating and maintaining a serials collection within their budget and space. The ALA Glossary of Library and Information Science defines the Serial as "a publication issued in successive parts, usually at regular intervals, and, as a rule, intended to be continued indefinitely. Serials include periodicals, annuals (reports, yearbooks, etc.) and memoirs, proceedings, and transactions of societies."[1] Due to the proliferation of knowledge and scholarly writing, library users find it difficult to get all relevant information in time. The costs of serial publications are also rising and publishers as well as librarians are struggling to meet the user's varying needs for journals. All these factors pose problems in the management of serials acquisition and its access. The different formats, delivery options,

subscription and licensing issues, standardisation and bibliographic control, archiving and many other issues makes serials management a big problem and so often neglected.

Until recently, librarians were thinking of migrating from their print collection to a mixed collection of print and electronic serials. Now, the situation has forced librarians to rethink and as a result of the flooding development of various technologies, electronic resources are dominating in the serials collection. But this migration again caused problems in managing the collection, with the complications like licensing, access, quality and reliability of electronic resources. Thus the area, 'management of serials' needs a lot of attention in libraries, especially in college and university libraries. In this context, the studies conducted on serials management are reviewed and reported here to have a thorough understanding of the topic. It is seen from the reviews that a large number of studies had taken place on every specific aspect of 'serials', but the studies were mainly conducted abroad. The journals like The Serials Librarian, Serials Review and Serials (now, Insights: the UKSG Journal) which are exclusively dedicated to serials literature covered numerous articles on serials management in American academic libraries.

It is to be noted that the serials section in Indian university libraries are not at all regarded as an important section. The services provided were not much satisfactory up-to the last decade and it is clear from the available literature that not many studies were conducted in this area in Indian context. The periodical use studies, showed the dissatisfaction of the users about the collection and services. According to Ramansu Lahiri, '' there is a lack of any standard methodology for the processing of serials operations in India."[2] He has also reported that while surveying the doctoral theses accepted at Indian universities from 1957- 87, no work was seen relating to the serials administration. Lahiri evaluated the serial control systems of the universities of north east region in India and stressed the need for better co-operation between user community and library management and between university management and library management.

2. BOOKS ON MANAGEMENT OF SERIALS

Thomas Nisonger[3] addressed the collection management issues of serials in his book "*Management of Serials in Libraries.*" It contained chapters on use studies, journal ranking and the application of citation analysis to serials management. According to Nisonger, the first book on serials (*The Problem Presented by Periodicals in College and University Libraries* by Pearl Holland Clark) was published in the year 1930 and the classic textbook of Serials is Andrew D. Osborn's *Serial Publications: Their Place and Treatment in Libraries* (1980). Books on serials are too many to be surveyed. However, some of the important books are, Peter Gellaty's[4] *Good Serials Department* published in 1990, Chiou-sen Dora Chen's[5] *Serials Management: a Practical Guide* (1995) and   *Managing Serials* (1996)[6] and also *Introduction to Serials Management* (1982)[7] by Marcia Tuttle. Some of the more recent books include, *The Serials Management Handbook: a Practical Guide to Print and Electronic Serials Management*, edited by Tony Kidd and Lyndsay Rees-Jones (2000)[8] which contained articles on various topics like need for serials, production, delivery, budgeting, ordering, processing and usage studies; *Introduction to Serial Work for Library*

Technicians by Scott Millard(2004)[9] in which all aspects of serials work like, ordering, processing, problem solving etc are outlined; and *Serials in Libraries: Issues and Practices by Steve Black* (2006)[10] . Black surveyed the serials environment and discussed issues in online access of serials, budget, managing print collection, and bibliographic control. He also addressed the serials crisis in depth and the use of serials.

3. JOURNAL ARTICLES ON MANAGEMENT OF SERIALS

During the survey of literature on 'serials', it is seen that there are several thorough literature reviews on the topic. These studies presented a proper overview of the serials related issues and the serials management trend in USA and in advanced countries.

Riddick[11] presented a review and bibliography of serials literature published in 1992 and discussed the issues: cataloging and specifications; networked information and electronic publishing; CD-ROM serials; collection development; serials pricing and serials management. Corbett conducted survey on serials literature from 2000-2003 and reported that the topic of electronic journals dominated the literature .The major issues identified were, cost, management and archiving. In another review of literature from 2004 -2005 Genereux[12] reported that the issues like the collaboration, communication and linkages between scholars, publishers, subscription agents and librarians were of great coverage during the period. The impact of electronic serials was also discussed. Carr[13] conducted a review of literature of the period 2006-2007 and the trend of transition of libraries from print to electronic was identified. In a 2008-2009 review Collins[14] opined that : "as serials professionals face reduced budgets, cancellations, and evolving publication models, Web 2.0 concepts of openness, interoperable systems, interactive communities and networking are reshaping the manner in which people communicate, access scholarly content, and develop tools to support library collections". She identified open access and Web2.0 as the major themes of literature. In the latest review of 2010-2011, Sutton[15] found that" the serials literature reflected the need for all members of the serials chain to demonstrate flexibility in the face of constant change" and the review was presented under the themes access, metrics , workflows and processes and user behaviour.

The themes identified in other articles found in the survey are presented here under the broad headings like pricing, access, management and archiving. It is to be noted that the changing trend toward e-resources is reflected in the literature, so electronic journals and their issues in management are seen mostly.

4. STUDIES ON PRICING OF SERIALS

Cost of the serial publications is going to be a primary concern for librarians. Technological advancements will not solve all economic difficulties. The huge increase in subscription costs affects the collection sizes and expenditure. The serials literature covers many examples of librarians, changing their policies to meet the user's needs in the current information environment. A thorough understanding of the publishing scene is essential for negotiating effectively.

Houbeck[16] studied the serials price increase due to change in exchange rates, domestic inflationary practices, increased production costs etc. He discussed the serial budget problem in libraries and also the issues which led to journal price increase. He advised librarians to monitor the journal prices, publisher, and distributor and the need for proper planning in journal purchase. Ortelback, Shultz and Hagenhoff[17] studied factors influencing journal pricing. The publishers' attitude towards profit positively influences price. According to Fisher[18], the editors have great influence over the price of serials and discussed the revenues and expenses in journal publishing industry. Basu and Ghosh [19]studied the impact of price hike on special libraries and pinioned that action and negotiation at the government level is needed to purchase foreign journals . According to Venkatesan and Usha Krishan [20], purchase of journals directly from publishers is better than purchasing through agents and they also suggested the exchange of duplicate copies of periodicals to other libraries. Garg [21] discussed the acquisition procedures through State Trading Corporation (STC), a governmental agency in India with its advantages and disadvantages. Pichuraman and Gopalakrishnan [22] made a cost analysis of periodicals and investigated the impact of hike in subscription rates, fluctuation of foreign currencies and predicted the cost trend of periodicals for future on the basis of statistical techniques. Reddy [23] presented the trends in price of periodicals by applying statistical indicators and co-efficient of variation. He suggested the need for adequate grants from the government for Universities in India and also the need for a national Periodical Centre. The practice of longer period subscription was also discussed. Biswas , Chatterjee and Sen[24] also suggested longer subscription in a case study of cost-benefit analysis of periodicals. They are of the opinion that cost of a journal is not directly related to its use.

By the year 2000, librarians started to purchase journals in bundled packages called 'Big Deal', to reduce the cost of individual subscriptions. Frazier[25] opinioned that, as the package prices increases, libraries find it difficult to go for big deal. According to Ebert[26], big deal helped the smaller libraries to enrich their collections. Carr[27] argued that "the publishers should offer packages with terms and pricing structures that are more accommodating to the needs of the libraries. Corbett[28] reported that from 2000-2003, "the price increase trend for journals continued, fueled in part by publisher mergers, and librarians combated it with the economics found in bundled packages and consortia based subscriptions". There are several articles mentioning the advantages of big deal like increased access, special pricing, lower unit prices, control over price increases, streamlined workflows etc. The disadvantages reported are, inability to manage local collections and reduced flexibility to change to alternative models. These studies identified the challenges to the sustainability of the 'big deal'. Torbett[29] commented that there is no satisfaction with big deal nowadays but librarians still believe that the advantages are more indicative than difficulties. It is to be noted that, there is chance that some of the titles in the package may never be used. Armstrong[30] discussed the impact of big deal or collection sales and presented a model of collection sales in which two kinds of journals (for-profit and non-profit) and two kinds of publishers (commercial and non-profit) were involved.

The provision of journal content free to the user via internet which is called the 'open access' (OA) came into the scene by the year 2003. The disadvantages and price increase of the big

deal method caused the libraries to adopt OA method as to provide access to scholarly output and thus to slow down journal price increase. There are several studies reporting types of OA publishing, its sustainability and cost analysis of OA models. Bosch[31] outlined 7 basic components needed for a sustainable business model for scholarly communication and examined the OA model in terms of these components. He argued that although OA is promising, no model is going to be sustainable for all. Pinfield[32] examined four scenarios for the future of scholarly communication and concluded that subscription and the OA movement can be viewed as complimentary models. For coexistence, he suggested some major changes to be instituted by OA administrators and publishers.

The topic of consortial activities has been discussed a lot in the literature. Anand and Malhan[33] highlighted the duplication in terms of Chemistry journals in the university libraries of 4 Indian states and calculated the wastage of money due to this. They further suggested the need for resource sharing in journals collection building. In Indian context, the UGC-INFONET Digital Library Consortium provides a boon to the researchers in information access. Arora, Trivedi and Kembhavi[34] examined the impact UGC-INFONET had made on research and development activity in the Indian universities. Perry's[35] survey responses indicated that consortia have a major role in acquisitions process.

Another alternative model to subscriptions is found to be the 'pay-per-view' (PPV) model. In this model, articles are purchased on individual basis. The advantages of this model includes, increased availability of journals and back files, immediate access to articles, cost-effective for low-use journals and it acts as a collection development tool. The limitations of the PPV model are, filtering of free or chargeable content, and specific budgeting. Carr[36] in his study described all these points regarding PPV and his survey showed that support is needed for PPV similar to subscription or packaging and it is cost-effective. He is of the opinion that PPV is the answer to user's needs. Weicher and Zhang[37] reported one library's experiences using individual subscription and PPV by throwing out the 'big deal' and found that improvements in the PPV infrastructure will provide mediated access which needs co-operation and communication within the academic community.

Some other types of journal procuring models are, gifts or donation and exchanges. In gift or exchange model, a lot of journals are received; but it also needs processing and shelving. So decision regarding what to accept in gift or exchange should be made in consultation with faculty and based on user's needs. Khode and Dhar[38](2005) discussed the exchange arrangement activity in a research library, Indore. This was with 60 selected libraries in India and abroad. Ojha[39] suggested a system for exchange of periodicals which included steps like, evaluation, selection, preparing mailing lists, processing etc.

5. STUDIES ON ACCESS TO SERIALS

Many studies were conducted on bibliographic control of serials, cataloguing and various access options. As in other areas, electronic serials were also having an impact on serials cataloguing and cataloguing workflow. Some have treated electronic serials as a different item by providing title lists not catalogues. CONSER is an important initiative in serials

cataloguing. It is the Cooperative Serials Program of the Program for Cooperative Cataloguing (PCC) of Library of Congress, and an authoritative source for bibliographic records, documentation, and training materials for serials cataloguing.

Bevis and Graham[40] reported the efforts done at a small university library at Alabama to manage and provide access to its electronic journal collections using traditional cataloguing methods. Molto[41] developed a means for identifying significant subject and function changes in serials with title changes and also recommended ways to recognize new serial works in cataloguing. She recommended modifying the Resource Description and Access (RDA) rules for major changes in the title proper of a serial. Terrill[42] provided an outline for evaluating serials displays in the online catalogue based on his experience of a project at a university library. According to him, the evaluation should be based on user needs.

Stubley[43] in his study provided an overview of the method used for serials display at Sheffield University. According to him, the main points that matters are the observation of serial use, a desire to encourage use, discrete location and ease of use by both staff and users. He opined that no display system for serials seemed to be perfect because of the disadvantages related to labelling, arrangement of current serials and loan policy. Leathem[44]outlined cataloguing treatment options for online serials. Saratchandra Kumar[45] discussed the objectives of periodicals display and presented the merits of each type of display methods.

Brandsma[46] studied the journal access program launched in the University of North Carolona, known as Journal Finder Service. The service allowed the users comprehensive serial access, both print and electronic, whether owned by the library or not, through a single interface. Journal Finder helped in; finding statistics related to access points, renewing subscriptions, photocopying service, interlibrary loan, PPV and in all matters of serials collection management.

Pichuraman and Gopalakrishnan [47]studied the Quick Glance Service introduced at the Madras Institute of Technology Library and found to be an effective tool. The service included circulating new periodicals among teaching staff on receipt.

O'Hara[48]conducted a survey of 145 academic libraries to know how they are making their electronic serials accessible. The survey suggested that libraries are generally relying on online catalogue, link resolvers and meta search engines. Link resolvers help by enabling users to link from a citation in a database to options that the library has to offer for accessing that content. Meta search engines help a user to search multiple databases simultaneously.

Tobia[49] discussed a survey conducted on e-journal collection at University of Texas and said that there exists a need for a phase change from print to electronic. She stressed the need for web based OPAC and the library web sites participation in e-journal access.

6. STUDIES ON MANAGEMENT OF SERIALS

Serials require continuous management process. The management functions cover all aspects of serials like, publisher price, bibliographic details, design etc. When a print journal goes electronic, it presents additional possibilities which are expensive and not easy to control. New journals are emerging every time. It again poses questions before the scholarly community. The changes in collection formats have also changed the serial workflows and processes. Libraries nowadays became more user –centred.

The change or shift from print to online is mainly due to the decreased budget in libraries and in response to the rapid technological innovations. The literature review showed that the problems faced by the serial managers and the steps to their solutions are of much concern at present. Henderson and Bosch[50] pointed out that the tightened economic barriers are the root cause for the shift to electronic. But according to Spagnolo, Pennington and Carter[51], the shift is due to the increased and changing patron needs. According to Sullenger[52], the movement to replace print serials with electronic only serials has a limit, as all titles cannot be obtained electronically. As to her experience, only 56% of journal titles were moved to electronic only subscription, others remained as print. Sullenger concluded that 70% will be the highest proportion that can be expected to obtain for electronic subscription. Montgomery[53] addressed issues like identifying and managing organizational impact of the transition from print to online collection. She is of the opinion that the organization also requires skills in leadership and management in order to succeed. Halijwale, Manjunath and Pujar[54] reported that many publishers had started to provide free online access to e-journals against print subscription. They discussed the modalities like administrative procedures in getting free online access.

Hoskins[55] presented the influence of OA initiatives on journal cancellation in university libraries in South Africa and revealed that OA initiatives had a very limited influence on journal cancellations. Hoskins and Stilwell [56] remarked that the libraries, affected by the increase in price of journals, decided to cancel subscriptions. Lauridsen[57] described one university library's strategy to cancel journals in order to meet with the problem of space shortage. It included cancellation of print journals with limited use and reliable electronic access and discarding the print collection which has secure e-access and archiving. Burgard and Easton[58] provided an overview of the ways libraries use the World Wide Web as a tool in serials management. He mentioned that the WWW can be useful in facilitating the journal cancellations process. Metz's[59] article outlined the tips for a successful serials cancellation project. It highlighted the need to collect and measure use data in cancellation process.

Robb and McCormick[60] discussed the case of a cancellation project at a small library. According to them, metrics data are good for serials management only if interpreted intelligently. Degener and Waite[61] stated in an article, the need for libraries to measure electronic journal collection and the challenges in this task. They presented a practical statistical model that can be used to count electronic journals available through a variety of access arrangements. Lightman and Manilov[62] reported an e-journal evaluation process conducted at the Northwestern University Library which combined citation analysis with

non-statistical techniques. King et.al.[63] discussed a framework of library economic metrics including service input and output, performance, usage, impact and cost and benefit comparisons. Balasubramanian, V.[64] discussed the Database management system developed for serials control. Computerised control of periodicals was discussed by Prasad and Rao[65]. System analysis in serials control was discussed by Balasubramanian and Satyanarayana.[66]

The functioning of the periodical section was discussed and suggestions for improvement were outlined by Kar and Siddiqui.[67]

There are numerous studies on the use of serials, especially e-journals, consortia use, usage pattern of different categories of users etc. Satyanarayana [68]conducted a study of use of periodicals in Andhra University Library and reasons for non use were outlined. A study on use of periodicals by medical practiconers done by Biradar, Anita and Ushalatha[69] proved that about 75% relied on periodicals for information on new procedures and medicine. Gupta,Krishanjal and Ravindran[70] studied the maintenance of periodicals collection to study the active life of journals. The problems faced by   libraries in the subscription of periodicals were discussed in different studies by Singh[71] , Basu[72] and also Venkatesan and Usha Krishnan.[73]

Harvell[74] introduced a methodology for evaluating new and existing journal subscriptions to ensure they are actually core at the University of Sussex. It was based on a system of scoring against a set of criteria like impact factor, citations, faculty use, inter-library loan, high online usage and costs. Usage statistics would help a lot in collection development. Usage based impact is a new initiative in this area. Pesch[75] described a usage factor project sponsored by UKSG and COUNTER and how it worked in developing a credible usage based measure for journal impact. Satyanarayana[76] is of the opinion that collection development in the e-content world is one of the most challenging functions in the libraries or the world today. It needs the libraries to redefine their purpose and functions. He had outlined many business models in the collection development process like, perpetual access rights, limited period access, subscription model, PPV model, ownership etc. Lynch[77] reviewed the key changes that have led to the 'Serials crisis' and discussed the strategy issues librarians should consider in dealing with this.

More studies are coming on the topic of automation of serials functions. The automated system has certain advantages like, predicting the arrival, check-in, routing list, binding schedule, cataloguing, location etc. The disadvantages include high cost and it requires more time to input data in MARC format. For automated serials control, several integrated library systems were introduced with serials components and modules. Balasubramanian and Satyanarayana [78] discussed the systematic processing of serials with more importance to claiming non received issues.

According to Shontz, [79] Data Research Associates (DRA) made remarkable contributions in library automation systems and launched Classic and Taos systems. Savage and Wilkinon[80] highlighted the Horizon integrated library system and its unique aspects in serials management. Green[81] is of the opinion that limiting the funds for serials hindered the

development of integrated electronic information systems. Describing the Source OECD, the online library of Organization for Economic Co-operation and Development, he argued that "if monograph publishers had offered their books to libraries in suitable monograph serial bundles on subscription there would be some significant cost efficiencies to be gained. "Martinsen[82] studied the Ulrich's Serials Analysis System (USAS), which is used to manage and rationalize periodical holdings across 36 libraries in Oxford. Although there were problems associated with uploading serials data into USAS, it proved to be a powerful tool for local, regional and national collection management.

7. STUDIES ON ARCHIVING OF SERIALS

Even though archiving is an issue of importance, it has less concern in literature due to the library's migration to electronic only without any proven archiving practices for electronic resources. There are discussions in literature regarding the archiving of electronic materials and comparison to archiving of print resources. To solve the problem of space shortage, collaborative or remote storage was adopted. The missing issues posed a major complication in archiving.

In an earlier study conducted by Green[83], the serials binding practices at 2 universities in USA and UK are studied and it is seen that, due to the application of newer technologies binding is cheaper in USA than in UK. Fonyo[84] discussed the difficulties caused by new technologies and the problems in social and political system in the development of Hungarian libraries. She argued that for smaller countries the archiving is neither practical nor economical and national and international cooperation is needed. Ferris[85] suggested the need for a national strategy for the preservation of library serials. It is also suggested that national co-operation is needed for maximum utilization of resources. The projects like, NEWSPLAN, and the RLG art Serials Preservation Program which had involved in co-operative preservation of serials were discussed to know their achievements and their problems. Gaur and Tripathi[86] discussed the need for preservation of electronic journals, challenges in archiving of print and electronic journals, strategies for preservation etc. They suggested that all the stakeholders should get together to initiate and develop a strategy for preserving electronic content and the National Library should take the lead. The various digital preservation systems like CLOCKSS, LOCKSS, PANDORA, PubMed etc were also discussed. Renwick[87] recorded the collaborative project of 8 university libraries in New Zealand due to shortage of storage space, in which the low used print journals were stored with a commercial storage provider.

8. CONCLUSION

The serials literature surveyed, presented the economic crisis in the US as a cause for the transition in library's processes. Librarians should also participate in the transition process by achieving skills and embracing the technological advancements to reap more from the scholarly world. Although the literature highlighted a number of problems in the transition activities, the solutions to these regarding the cost, management, access and archiving are not plenty. As Anderson[88] commented, "the future for libraries implies more laptop and fewer

patrons in the library and more free online content." The future libraries will require more ease and speed in information provision and there will be chances for less staff and low budget. So the librarians will have to work hard to provide evidence that their services and staff output are worthy and that is the great challenge of today.

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