Identification of Users' Information Needs: An Analysis of Inter-library Loan Requests for Journals Selection

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ABSTRACT

The paper describes an attempt made to identify the Raja Ramanna Centre for Advanced Technology (RRCAT) library users' information needs by using data of inter-library loan (ILL) requests. ILL requests received for the year 2005 and 2006 were analysed. There were 688 documents requested during this period. The parameters studied were: frequently requested journals, and currency of users' information seeking by analysing publication year of all requested documents. The study found that 16 (5.95 per cent) journals were the most frequently requested journals, in which 31.8 per cent of requested documents had been published. About 50 per cent of the requested documents were published since 1995. The results show that RRCAT library users are heavily seeking information from selected items and those that were published in the past few years.

Keywords: User needs, information, library user studies, inter-library loan, library collection development.

1. INTRODUCTION

Many disciplines in science are heavily researched, thus topics are changing in a rapid manner. Also, the literature in science and technology is growing at an exponential rate, therefore, it has become essential to assess the information needs of the users periodically to customise value-added services and resources. In a science and technology library, collection development is the third important function out of five primary functions.[1] The collection development function entirely depends on the mission and goals of the parent body in respect to the research, educational, recreational and other day-to-day information requirements of the users that it serves. It determines the library collection's scope and depth, and the services offered. Traditional methods of collection development are: use of librarian or user subject specialists, user recommendations, and approval plans. The information requirements of users vary with their educational background, work assignments, time, geography, organisation, age, availability of technological facilities, and other factors. To identify user information needs, librarians conduct surveys, distribute questionnaires, interview, and also analyse the circulation data, external and internal inter-library loan requests data, and web log data. All these methods help to identify information needs of users only to some degree, not completely.

RRCAT is a premier research and development organisation in the area of lasers, accelerators and its related disciplines. There are about 500 scientists and engineers engaged in R&D activities, and 500 scientific/technical support staff. The RRCAT library since its inception is offering various information services actively to all its users and visitors. ILL is one such service offered to users for on-demand materials that are not available locally due to the proliferation of material and limited library budgets. The ILL service is the last of the five main functions of any science and technology library.[1] The online dictionary for library and information science (ODLIS) defines ILL as, "When a book or other item needed

by a registered borrower is checked out, unavailable for some other reason, or not owned by the library, a patron may request that it be borrowed from another library by filling out a printed ILL request form at a service desk, or electronically via the library's website. Some libraries also accept ILL requests via e-mail or by telephone, usually under exceptional circumstances. Materials borrowed on ILL may usually be renewed on or before the due date"[2]. The term ILL is also referred to as 'document delivery (DD)' and 'resource sharing'. The term DD is used, rather than ILL, because organisations other than libraries engage in providing documents, both originals and copies to other organisations[3]. The ILL requests received in the years 2005 and 2006 at RRCAT were analysed to determine frequently referred to journals by the users from those non-subscribed journals. The currency of information sought by the users was also determined by examining the publication year of all the requested documents.

2. PRESENT LIBRARY RESOURCES

RRCAT library collection is up-to-date, with texts, periodicals and other research materials carefully chosen by experienced scientists and engineers. This includes 10,000 books; 1,000 standards; 3,500 scientific/technical reports; 3,000 photographs; 1,000 e-books and proceedings on CD-ROM, videotapes and back volumes. The library is currently subscribing 175 print/online journals, plus Sciencedirect, Physical Review Online Archive (PROLA) and the Institute of Physics (IOP) journal archive. Users can access up-to-date information relating to various resources such as item availability status, subscription status of online/electronic resources, etc. through library's Intranet-based WebOPAC (Web-based Online Public Access Catalogue) from their desktops.

3. OBJECTIVES

The objectives of this study were to identify:

✂ Frequently requested journals for journal selection

✂ Currency of users information requests.

4. LITERATURE REVIEW

Using ILL/DD data for collection management, development, and redesigning systems and services is not new in libraries. Professionals have conducted numerous studies at various levels and published papers in journals, proceedings, books, etc. on this topic. 'Google Scholar' the literature search engine as on 13 February 2007 retrieved as many

as 1,370 records relating to this topic, against the search query "inter-library loan"+"document delivery"+"analysis". A review article appends 228 references concerning ILL, DD, and resource sharing from 1995 to 2000 is one other example.[4] It was also the topic of 1993 ALA Collection Development and Evaluation Section (CODES) annual program.[5] ALA recognised this method in 1994 by stating that ILL is an integral element of collection development for all libraries.[6] The 'access versus ownership debate' is the most common topic based on ILL/DD data.[7]

In one specific study, the article reported usage of ILL/DD data at Louisiana State University libraries for collection monitoring, assessment of faculty members' journal needs, and sharing of resources among libraries[8]. Another study assessed the collections of Veterinary Medical Library at Auburn University by using DD data, and reported the collection weaknesses and requirements for new acquisitions[9]. The Purdue Libraries study on patron requests suggested two new models for collection development using patron requests.[10] The study conducted at the University of Colorado libraries analysed the library collection with circulation and ILL borrowing request data and explained the changes made according to users borrowing patterns.[11] Byred, *et al.* used the statistics gathered using ILL borrowing for books to assess the strengths and weaknesses of library book collection in relation to user demands.[12]

E.M. Lacroix and G.A. Dutcher compared 1,959 and 1,984 ILL requests data filled by the National Library of Medicine and found that only a small percentage of serial holdings was utilised to provide service.[13] Bleeker, *et al.* examined 60, 779 external ILL requests at the Brasmus University Medical Library in 1988 and reported 50 per cent of requested documents were published in the most recent two years period, and 90 per cent of requests could be filled from a 21 run of serials. The study also reported that 4,157 internal requests were analyed for journals not belonging to the collections in order to identify the most frequently sought titles.[14]

5. METHODS

Library user(s) of RRCAT library submit request(s) for required document(s) through an Intranet-based ILL form by filling in bibliographic details. All requests submitted from the beginning of 2005 until the end of 2006 were used for this study after excluding those materials that are part of the library holdings and were requested by users unknowingly. This data was analysed using Microsoft Excel. There were 688 document requests made during this period;

336 documents in the year 2005, and 352 documents in the year 2006. In some records users entered abbreviated journal title, and in some records the year of publication was not included. Those records were completed with correct data, sorted and counted.

6. RESULTS

6.1 Frequently Requested Journals

The journal(s) from which document(s) were requested repeatedly were identified in this parameter. The number of requests made was drastically low, since subscription to many online resources was initiated just few years before 2005; and also users acquire some material electronically through open access sources such as e-print servers, institutional repositories, and author personal web pages. It was found that there were 269 journals in which all 688 requested documents were scattered. About 25 per cent of documents requested were from only 11 journals, nearly 50 per cent of documents from 37 journals, and 76.6 per cent from just 40 per cent of the journals. From the 269 source publications 161(59.9 per cent) of the journals received only one document request. Figure 1 depicts cumulative percentage of journals in relation to cumulative percentage of material requests. Out of 269 journals, 16 frequently requested journals had nine plus document requests per title (*Appendix 1*). These 16 (5.95 per cent) journals have published 31.8 per cent of requested documents. Out of the list, the library has now subscribed to four journals. For the requests that are not in our holdings, the library may consider purchasing back volumes. Nine newly identified journals may also be considered for subscription. The Journal Citation Reports (JCR) impact factor values of these journals are also in decreasing order in terms of
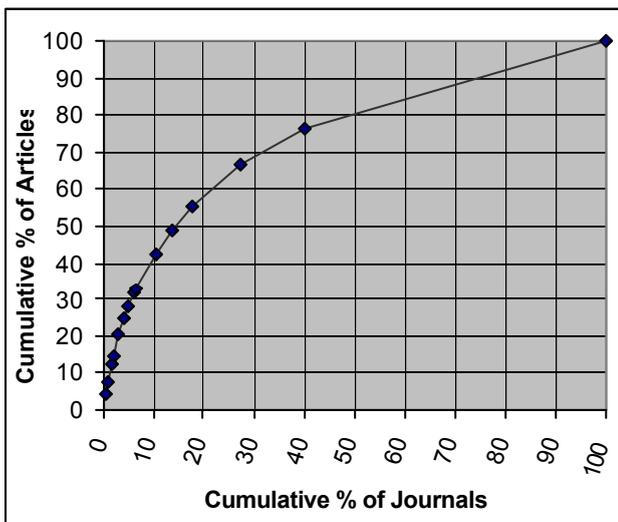

Figure 1. Document request vs sources.

number of requested documents. It shows some correlation between the users information seeking behaviour and impact factors.

6.2 Currency of Users Information Requests

The 688 documents requested were published during 1922-2006. The publication year of all requested documents in relation to number/percentage of documents is presented in Fig. 2. It shows that the information seeking nature of users heavily depends on the past few years' publications. That is about 50 per cent of documents were published since 1995. From the 356 requests in the year 2006, 31 (8.7 per cent) documents requested were published in the same year. Similarly, in 2005, 25 (7.5 per cent) documents out of 388 requested were also published in the same year. All together 9.44 per cent requested documents were published in the year 2004 alone, which is higher than all publication years. This shows current information seeking pattern. The decline in the number of documents requests from the current year to previous years also can be seen in the Fig. 2.
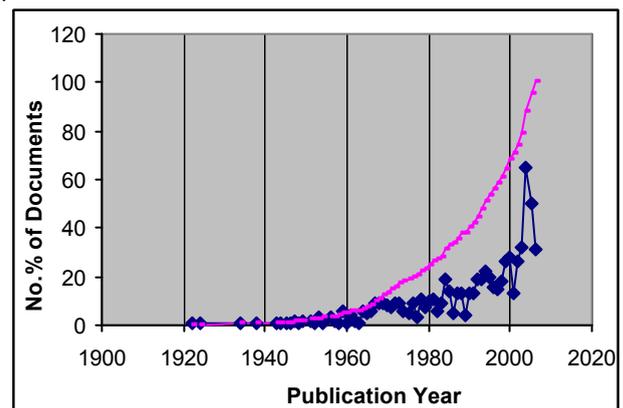

Figure 2. Publication year of requested documents.

7. CONCLUSION

As mentioned, ILL/DD request data analysis helps only to some degree like any other information needs assessment method. This study helped to fill the gap of present library collections. It found 16 most frequently requested journals, which published more than nine requested documents. It also found that users seek information from only the past few years' publications. Therefore while selecting/choosing books and related documents for the library currency, contents should be verified thoroughly, and also the less used back volumes may be shifted to repository in order to save the space in the library. The results obtained for most frequently requested journals were submitted to the authorities for consideration for future subscriptions.

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