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Module : 04 Analysis of Circulation data, including the quantitative methods to evaluate collection

ज्ञान-विज्ञान विमुक्तये

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Unit 4
Analysis of Circulation data, including the quantitative methods to evaluate collection

I. Objectives

- To highlight the importance of circulation data, most often neglected
- To know the elements of a circulation transaction record
- To examine the studies on analysis of circulation data and their applications
- To profile some studies on Circulation data evaluation and Pittsburgh Study
- To study implications of quantitative methods in the evaluation of collection
- To profile the elementary types of Library Statistics

II. Learning Outcome

You will gain knowledge in the area of 'Analysis of Circulation Data' also you will be knowledgeable in the area of library statistics; how to apply it for collection development, including evaluation of library collection.

III. Module Structure

1. Introduction

The circulation section of a library is the one which comes in contact with the customers most. It is one of the most visible section hence Ranganathan has portrayed it to the tip of a temple tower, as it is a library is simulated to a temple (Ranganathan,1973). The circulation department in a library is a dynamic section with several associated activities with outputs of a vast volume of data that can be used for the better Collection management and development.

Several studies and models on the use of circulation data or circulation transaction records for analyzing the collection of a library and use the same for collection development and management are available. Simple circulation statistics suggest that a document borrowed most frequently by the same or different borrowers, is more useful than one borrowed less frequently. The concept of resource sharing might be correlated to the cooperative collection development policies based on the behavior of transaction records. So the data of circulation transactions is very valuable and has multiple implications in the use of library collection. As it is discussed in the Unit -3 the "Use studies" is complementary to the applications of this Unit.

2. Study of Circulation Transactions

The most important item of circulation statistics is the circulation transactions comprising several variables. They normally include; issue and return of books, interlibrary loans, number of registered members and by category of users, overdue fee collection, delinquent user and more in depth issues by language and subjects, by department, by type of user and many more as are required. So the quantum of statistical data compiled and maintained by the circulation work is of high magnitude and its implications are found in the improvement of library services and most so in the collection development and collection evaluation. It is stated that "analysis of circulation data gives rise to information related to the volume of use by type of documents and by type of user, use of documents of different age, seasonal variations in transactions and so on".

The librarians and libraries have believed that the circulation data, generated out of transaction records** of documents borrowed, could be taken as an indicator of the use of the library resources. This simple unnoticed and unevaluated circulation data or statistics would suggest; frequency of borrowing the item by the same user or by different users and can be used for several library collection development instances. Its further utilities are numerous, for example, the borrowed document data along with the borrower data provide information which can be used by the management for formulating and adopting policies for the acquisition and processing of documents. It can, observing the transaction record of a document or documents over a period of time, decisions on weeding or de-accessioning the collection. So the circulation data of a library provide several indicators and can be utilized for collection evaluation, improving the collection and the library services.

****Example of Element of data in a Transaction Record:**

- Name of the library/Institution and other details
- Bibliographic details of the item borrowed
- Personal and official details of a borrower
- Date of borrowing
- Due date
- Date of Return
- Number of times the item is borrowed and frequencies

So in this Unit the studies on Analysis of Circulation data and utility of the same in the evaluation process are discussed.

3. A brief Literary Review

Several studies have been attempted in the context of collection evaluation using the circulation data, especially book transactions. It was Trueswell who made a beginning for the study and analysis of transaction records in 1964 (Trueswell, 1965). He discussed the problems involved in forecasting document use based on transaction records. He pointed out that one way of predicting future use is to examine the distribution of transactions over documents. This requires scrutiny of "due-date" slips attached to the documents. The objective of his study was to identify a "core collection" of frequently used documents. Trueswell's method is based only on the "last recorded circulation date". He examines the due date slips for each volume borrowed during a specified period of time in order to record the last circulation date for each document. Since the study by Trueswell many studies on the analysis of circulation data have been carried out and some of them also made improvements over his study.

Turner (Turner, 1977) in his generalization of Trueswell's approach, presents a method that he calls an identifier method that could be used to develop rules in many non-library oriented areas where identification of low-use items is desirable.

Morse (Morse,1968) has shown that the distribution of number of times a book is issued follows a Poisson distribution. Ravichandra Rao and Burrell have shown for a large set of data the distribution of transactions follows a negative Binomial mode(Burrell & Ravichandra Rao, 1982).

Ravichandra Rao has shown that transaction of documents over a period of time manifests 'success breeds success' phenomena, and that means " it is only those documents which are circulated are likely to be circulated again and again". He has also shown that the circulation can be used to evaluate the library circulation (quantitatively based on the circulation data) using concentration curve (Ravichandra Rao, 1983).

The statements were revised with further studies in the form that "time gap between the date of last circulation and the current date" observed by Trueswell and this time-gap is termed as "idle-time" of a document. The idle time is described in an example such as "a book might have been used 20 times, 20 years ago; another book might have been used only once a week ago". In this context it is quite likely that chances of the latter book to be in circulation in the near future are much higher than the chances of the former. So another revised interpretation as "it is only those documents which are circulated recently are likely to be circulated again and again" be made about the circulation data.

4. Analysis of Circulation Data

The circulation data it is affirmed can be correlated to several other variables. That this data/information can be used in teaching methods adopted, changes in circulation and the examination procedures adopted in the universities. In this context it is possible to correlate the circulation data with the overall objectives of the library, physical facilities available in the library, hours of charging and discharging functions in the library.

It is further examined that the circulation data using the user and documents characteristics – age of the user, gender of the user, status of the user, level of document, subject content of the document etc., it is possible to map a library's use with following evaluation results.

- A pattern of relative frequency distribution of documents in the collection in a given period of time, and
- The proportion of the circulated documents to the total collection of the library.

These results would further involve:

- An analysis of the data in terms of its usefulness to library management;
- Developing a technique for collecting data
- Identifying the types of deductions that can be made from this data

4.1 Case Studies

Two important and well known studies on evaluation and acquisition policy are briefly profiled here. They are i) Pittsburgh Study and ii) The SLIS Study.

a. The Pittsburgh Study

As the name states, this study was conducted at the University of Pittsburgh by Montgomery and others. The researchers investigated the use of documents in order to evaluate the acquisition policy in terms of subsequent use and also to devise a cost-benefit model for use in collection management. The study defined the 'use' in terms of 'number of times' a document is borrowed.

The study was undertaken in 1975 and conducted in the Hillman Library The second study was done on the use of journals in six science and engineering libraries. The third study consists of a very detailed analysis of the costs of library use and a cost-benefit model of library operations. These are some of the most detailed and best such analyses in the literature.

Use in these libraries was generally low, and highly concentrated on a relatively small proportion of the collections. Browsing was mainly in current and recent volumes; the great majority of older volumes were approached through specific references. There are striking differences among the six libraries presumably explicable by local conditions. The methodology of the sample study, intended as a possible model for other libraries, nevertheless seems hardly less cumbersome and time-consuming than other methods.

Its findings the study determine the extent of materials use and the full cost of such use in the university library system. The purpose of the study was to act as a foundation for improved acquisitions policies. The study uses several research tools like, questionnaires, observation, interview methods. The sample of six libraries used consists of data on the circulation and in-house use of books. It also consists of circulation histories and makes statistical comparison of use and acquisition; journal use as determined through user observation. It defines key concepts and other aspects of use as related to other factors, such as duration of subscription, academic status, age, and department of user; an economic analysis of acquisition and use; and the design of a cost benefit model for library operations, which emphasizes acquisition.

In conclusion the study's findings make recommendations to explore further the possibilities of resource sharing, and questions are raised about implications for decision-making in library acquisition. A supplementary appendix for the journal use study discusses technical data, application of data collection methodology to other studies, and collection management.

b. The SLIS Study

This study is of School of Library and Information Science (SLIS) of the University of Western Ontario. The study is the outcome of the investigation made by Ravichandra Rao (Ravichandra Rao, 1981) on the use of documents in Canadian University Libraries.

The main objective of the study was to characterize the document and user distributions with the following assumptions:

- The adequacy of the collection is directly related to its use by different category of users.

- A representative position of the use of a library has been shown with the analysis of circulation data.

- Each user has different objectives and each document has a different user, the use of a document by a user in a library is the result of a large number of random occurrence and therefore transaction records constitute a random sample of all possible transactions in a library

- Use is independent of time in the sense that the overall age distribution remains same, although the age and user of individual items may change

- Users are independent of one another, which imply that the probability of one using a document is independent of the probability of another using the same or another document.

The SLIS Study is based on the circulation transactions collected from Six Canadian University Libraries. The advantage of the study is that the Libraries are automated in particular the circulation system which would rather convenient to compile the data.

The main finding of the study was; "the frequency distribution of transactions over both users and document are reverse J shaped, highly positive skewed, and have long tail. Further analysis of circulation data indicated that;

- The mean of the distribution is equal neither to the variance, nor the standard deviation of the distribution,
- The variance of the distribution is a non-linear function of the mean of the distribution, and
- A low percentage of the users in the university libraries make maximum use of circulation service and an equal percentage of documents circulated are borrowed frequently.

Further some of the highlights of the study are:

- Frequent users are more likely to than infrequent users to borrow books which are borrowed frequently and infrequent users are more likely than frequent users to borrow documents which are borrowed infrequently, except that
- Users in the area of Arts irrespective of whether they borrow documents frequently or infrequently are more likely to borrow documents irrespective of whether they are frequently or infrequently borrowed documents.

5. Evaluation of Collection

The recognition by librarians of the need to evaluate library services is:

i. the awareness of their social responsibility,

ii. the ever increasing needs of users, and

iii. Financial constraints on spending.

The growing awareness on the part of librarians of their social responsibility has awakened them to the concept of evaluation. Added to this the increasing needs of the users, inflation and its impact on spending and the acceptance by the librarians of the concepts such as cost-effectiveness and cost-benefit analysis is the part of evaluation. These are the causes for having an increasing number of evaluation studies in Librarianship. Evaluation is undertaken to assess the performance of an existing system or activity. It enables to identify strengths and weaknesses and suggests remedial measures to bring about improvement. The interest in evaluation is also indicative of the fact that Librarianship has attained maturity calling for quantitative measurement. One can, thus explain the emergence of evaluation research in the field.

According to Busha and Harter "evaluation research is an attempt to measure operations in terms of the goals of libraries or library projects or the end results sought ".Library projects and programmes, are the objects of evaluation and their performance or effectiveness is measured in terms of goals and objectives. The purpose of evaluation studies, therefore, is to measure according to a suitable scale the performance of programmes in terms of the goals and objectives initially set by these programmes (Busha & Harter, 1980).

The general procedure or research design for evaluation studies are is as follows:

- Determination of the object and reason for evaluation.
- Setting the level of performance according to the objective.
- Selection of technique for evaluation.
- Preparation of scale to measure the level of performance.
- Measuring and determining the extent of achievement.
- Evaluation as per the measurement of achievement.

These studies in Librarianship do not go beyond effectiveness evaluation, as these are least complex. According to Lancaster, there are three levels at which evaluation may be carried out. These three levels are (Lancaster,1988).

- effectiveness evaluation,
- cost-effectiveness evaluation, and
- cost-benefit evaluation.

As seen above, at the first level the effectiveness is measured in terms of goals and objectives. At the second level, it is measured in relation to its cost; while at the third level costs are related to the benefits that may be derived from the programme.

5.1 Evaluation process

The among the types of evaluation, the comprehensive (meaning covering all aspects of library) evaluation is one which covers entire working of the project or programme or the organization itself. One of the examples in this context is the Carl White Survey of the University of Delhi Library. It was concerned with total evaluation and therefore, had to use multiple techniques. To judge the general progress of the University Library, Carl M White made comparisons between the data available internally with those on other libraries in the country, examined the University's records to determine the pattern of its growth, used norms and comparative analysis to measure the financial support the library received, and very importantly checked standard bibliographies to assess the strengths and weaknesses of the collection and sent out questionnaires and interviewed teachers and students to measure user satisfaction from the library services. This evaluation was carried out in terms of the standards and educational commitments of the University. This bears out the fact that evaluation presupposes stated objectives or targets.

One remarkable feature of the 'White Survey' was a bibliography compiled of over 6500 desirable titles from eighteen subject fields to check against the existing collection. Similarly, another list of essential journal titles was prepared. Both these tools were prepared with the help of standard bibliographies and in consultation with the teachers in the University.

As has been mentioned above the standard bibliographies are the principal tools for collection evaluation. These are checked against the existing collection to determine the extent of subject coverage achieved by them. This is known as the traditional method of collection evaluation. One drawback of this method is that while it is possible to know a lot about what is not held, one does not learn anything about what is actually held.

As an alternative, Herbert Goldhor has suggested an inductive method where a complete list of library holdings in a specified subject is compared with several book reviewing and book selection tools. Those titles held by the library which are on multiple lists are .clearly desirable. Those which are included on no list are perhaps not desirable. The titles which are only on one list are of borderline quality. This is the inductive technique of collection evaluation. Using this technique, the evaluator would know more about what the library has and also about those titles that library has but is not included on other lists.

5.2 Evaluation Studies

A quite a number of evaluation studies have been published and reported and Nisonger (Nisonger,1992) has documented in the form of an annotated bibliography more than 200 studies in various categories, by type of documents, by type of libraries, by type of users and by type of use – by circulation, interlibrary loan transactions, in-house use. The bibliography has separate sections on periodicals use study, Pittsburgh Study and the methods adopted. It can be noted that different approaches were used in the quantitative evaluation of collection. Here below some studies are mentioned.

5.3 Trueswell’s 80:20 Rule

One of the landmark studies in the evaluation of collection is attributed to the classic phenomena of 80:20 rule evolved by Trueswell (Trueswell, 1969). According to this rule “Approximately 20% of library holdings will account for about 80% of circulation which has been evolved by the author by conducting several investigations and publishing research papers. In this context author uses data from several libraries which include an assortment of different types of libraries. The sample includes a biomedical library (journal circulation data), Air Force Cambridge Research Laboratory Library (monograph circulation data) Massachusetts Public Library, Northampton (in-house use).

5.4 Examples of Collection Evaluation Studies

Baker and Lancaster (Baker & Lancaster,1991) have applied collection use studies. They discuss two types of quantitative data, mostly applied in use studies. They are; interlibrary loan statistics which reflects unmet demand and circulation statistics, which is a met demand. The evaluation addresses the role of collection use studies in identifying core collection and materials for weeding and dormitory storage (remote storage).

The identical authors have in another study utilized the "in-house use" in a public library (Baker and Lancaster, 1991a). The methods applied to collect data are, a) Table Count b) Slip method c) use of questionnaire, and d) interviews.

The findings of the study are:

- The level of in-house use varies widely among libraries
- Circulation and in-house usage correlated with each other, and
- Older material received less in–house use.

Lancaster has attempted yet another study on evaluating collection by their use. The study covers the quantitative data pertaining to circulation records, in-house use, document delivery and shelf availability. The study has explained with methodological approaches adopted. Lancaster observed in this context that "a major limitation of this approach is their focus on 'expressed demand' of actual user, while neglecting the 'needs' of non-users. One of the important points highlighted by him is that 'the potential of automated system for generating use data has not been explored'.

In another study, Lancaster on the analysis of use data has explained that circulation follows a hyperbolic distribution, that is a small number of items circulate a lot, while most books seldom circulated. A point of 'relative use' is explained as "comparison of proportion of subject documents" to its "proportion of holdings". The implications of 'under use' and 'over use' points are analyzed and explained.

He uses several methods, such as Jain's collection sample – meaning 'analyzing the total circulation history for a sample of the collection and by determining which books circulate during specific time period (examination, seminars/colloquia, project writing) as well as Trueswell's last circulation date method.

6. Evaluation of Electronic Resources

The evaluation of electronic information resources obviously is different from the evaluation of print resources due to the absence of physical presence of the former. The electronic information resources are more or less user centric, web centric rather than library centric.

The collection building and development activity of electronic resources is virtual and cannot be visualized like the print sources "Electronic resources" refer to those materials that require computer access, whether through a personal computer or through networked access so they may either be accessed on desktop or remotely via the Internet or locally. So a structured survey of use of information sources has to be conducted using an open ended questionnaire, which would also include awareness, skills and knowledge of search and access and overall the knowledge ICT. So it is very different from the traditional collection and the format and media is also entirely different and only e-journals and online bibliographic reference databases are made accessible through the consortia mode so they are the ones widely used now more than the others categories of resources.

Some of the most frequently encountered types of e-resources are:

- E-journals
- E-books
- Full-text (aggregated) databases
- Indexing and abstracting databases
- Reference books (biographies, dictionaries, directories, encyclopedias, etc.)
- Numeric and statistical databases
- E-images
- E-audio/visual resources

There are differential costs and pricing models for access and use of electronic information resources (EIR) and to overcome this limitation the e-journal digital library consortia are constituted for sharing and collective use. As discussed in Unit-3 the publishers themselves have included the usage study facilities in these databases and it is only a quantitative data for the publishing policy and for the management to assess the cost-benefit of such services. So the evaluation studies on EIR are individualistic and are being extensively carried out at the individual institutional level. However there are some guidelines issued by national and international bodies such as International Federation of Library Associations and Institutions (IFLA, Johnson, 2012). A guide prepared by IFLA is briefly described here. However it can be noted once again there are no widespread studies on EIR as in the case of print resources

This IFLA Guide focuses exclusively on e- resources whether acquired via purchase or license, free from the web, born digital or multiple format materials (e.g., CD-ROM combined with a book). E-resources present a number of challenges not encountered with the selection and acquisition of traditional analog materials and it is advisable for the library to develop clear policies and processes for the selection and management of such resources. This will provide clarity to staff and ensure that e-resources within the library are developed with due consideration of cost, technical feasibility, licensing, access and preservation requirements, and constraints

In case of traditional library materials, the selector makes the decision to acquire an item with only limited consultation with other departments following established policies and guidelines. Electronic resources present a number of hurdles not encountered with traditional library materials. In addition to the criteria that apply to analog materials, electronic publications raise complex issues around licensing, access, networking, pricing, ownership, and rapidly changing technology and standards.

In the case of e-resources the selector cannot make a decision to acquire an electronic resource in isolation and must liaise closely with other departments in the library to evaluate the suitability of a resource prior to the decision to acquire. Typically this will involve consultation with staff responsible for technical systems and services, acquisitions, resource discovery (cataloguing and access), contracts and licensing, and service delivery. To ensure consistency of approach it is good practice to establish clear guidelines and processes for the selection of electronic resources. These might include the development of a check list for selection and evaluation; establishing clear roles and lines of responsibility and consultation and the establishment of an e-resource evaluation panel composed of a group of e-resource stakeholders from various departments within the institution. The library should also inform users about new content and services as well as potential temporary problems accessing e-resources. To establish if an electronic resource is appropriate for the library's collection and to help determine the true and hidden cost implications of acquisition, storage, maintenance, preservation and other issues, detailed information regarding the item is required. This information needs to be reviewed against the library's e-resource collection development policy. In some instances libraries may find it helpful to develop an e-resource selection and evaluation checklist with a detailed set of questions the selector must answer as part of the selection and evaluation process. Such a checklist might include specific rules regarding prioritization of platforms or providers to provide additional guidance for selectors for e-resources available on multiple platforms via different providers.

i. Content
ii. Technical requirements
iii. Functionality and reliability
iv. Vendor support
v. Supply

i. Content

Initially electronic resources need to be reviewed and evaluated for selection from a content perspective against the same policies, guidelines and criteria that apply to print resources.

Typically such criteria might state that the resource:

- Support the main research aims and goals of the organization.

- Complement or add depth or breadth to the existing collection supported by subject profiles.

- Be of a certain quality, e.g., peer reviewed, or have a reputable producer.

- Support the requirements of the/a key audience.

- Generate an acceptable level of use.

A number of content criteria, unique to electronic resources, need to be considered. These criteria are particularly important in helping to determine the preferred format in which to acquire an item where there is both a print and electronic equivalent. These include the consistency of the electronic publication with any print equivalent, the currency of the online content and frequency of updates, the availability of back issues, archiving, and added value of the electronic resource over other formats, and pricing.

ii. Technical requirements

Electronic resources also present a number of technical issues that need to be considered to ensure resources are compatible with existing library hardware and software and that the library has the capability to provide and effectively maintain access to resources on an ongoing and cost effective basis. Evaluation should be in consultation with the appropriate technical staff and should include consideration of the following:

- **Method of Access**
- **Authentication –**

□□□□□□□□□□□**Compatibility** with Browsers and Content format:

iii. Functionality and reliability

In assessing the suitability of a resource in terms of functionality and reliability issues, the library may find it useful to evaluate the following:

- Interface –
- Search and retrieval – Search strategies and Transliteration:
- Exporting and downloading
- Response, reliability and availability –
- Integration

iv. Vendor support

Consideration needs to be given to how well established, and reliable an electronic resource vendor is and to the range of technical and user support services they are able to provide. It is useful to determine the range of vendor support services available, including:

- Trial evaluation and product demonstration
- User training and support
- Technical/customer support and system notification processes
- Customization –
- Data security and archiving –

- Bibliographic data provision –
- g. Statistical reporting –

v. Supply

Unlike print subscriptions, there is no standard model for the packaging and pricing of electronic publications. It is important to consider the range of purchase/pricing models available and determine which one best meets the needs of the library in terms of access and archival rights and value for money.

- Purchase models and pricing

- Separate pricing for content and access.

- Combined model –One-off archive fee and an annual access fee for more current content.

- Pay-per-use pricing.

- Rental models.

- Consortia pricing.

- Print plus electronic – Where the publisher requires the purchase of both formats. Where possible the choice to acquire in both formats should be that of the purchasing library and not a condition of purchase.

- Packaged pricing - Requiring purchase of a specific group of titles (usually subject based).

- Big deal – Where all the content is made available for a price and not just the content the library has actively selected.

- Introductory pricing - Where an introductory price is offered consideration

- needs to be given to future affordability if the price increases substantially after the introductory period

- Multi-year deals with fixed price caps.

- Patron-Driven Acquisition pricing models, e.g. pricing based on usage triggers (e-books of aggregators)

- Number of users and sites –

- Back files, archiving and post termination rights –
- Cancellation rights –
- Invoicing
- Renewals

(For full text of the Guide Ref: Key Issues for e-Resource Collection Development: A Guide for Libraries.
www.ifla.org/...collection.../IFLA_**ELECTRONIC_RESOURCE_**GUIDE...)

7. Library Statistics – Need, importance and standards

Libraries are community service institutions and the community expects them to be run efficiently. In this context the administrators and managers of libraries must have some data by which they can judge work of the library and library staff and an overall idea of working of the library. This data collected over a period of time is considered the statistics. "The modern library certainly cannot now be operated as though it were a passive repository for printed materials". The librarian should know as accurately as possible what now is going on and should be able to predict what probably will be going in the future. This is where the application of statistics comes into picture. From simple numeric or arithmetic calculations, such as number of books available, acquired etc., the libraries are now gradually developing and using statistical models to describe various aspects of Library use. Statistics are "Facts in figures". "The descriptive details are reduced to figures so that the important facts are brought to the notice of public in a readable and intelligible manner" To reduce the mass of information to comparable form and to ensure objectivity is one of the major functions of statistics. The process of assessment and accreditation of higher educational institutions and their libraries has further necessitated that libraries maintain a good statistical data when sought by the authorities.

8. Librametry

Ranganathan emphasized that Libraries have to regularly compile and develop the application of statistics his practice on the collection of data on strength of the staff – data on man hours needed in a year for each item of work in the library, which created staff formula, based on the work load. Comprising all these aspects of collection of statistical data from different library activities, he coined an exclusive term "Librametry". He also used time and motion study and the context of the staff formula with a precision. Ranganathan used the term "Librametry" in 1948 at the Aslib Conference in Lamington Spa, which he said is parallel to biometry, econometry and psychometry. He said application of statistical calculus to library problems was since 1925 and to Day to day working of the library and library systems in the "Distribution of staff for work. This was used by Ranganathan in the Draft National and State Library Development Plan based on the demographic and financial data" (Ranganathan, 1995).

9. Source or mode of collection of Library statistics

In general library staff would maintain diaries to record the progress and follow-up of their day to day work. This diary is the main source of library statistics. If the staffs are not maintaining any diary, the practice has to be implemented so that timely and useful statistics on the library activities is automatically compiled. The statistics should, form these diaries can be prepared monthly and annual bases.

10. Standards of Library Statistics

10.1 Standards and Guides on Library Statistics

Standards and Guides for Library Statistics are issued by International and National Library Organsiations and Associations and International and National Standards bodies are listed below.

10.1.1 International Federation of Library Associations and Institutions (IFLA)

i. Background

The idea is to have a certified document about the importance of library statistics, as they demonstrate the value that libraries provide to their users and to society. Statistical data are indispensable for the internal management of libraries, but they can do more. When presented to policy makers, funding institutions or the general public, they will influence the strategic planning, and they can create and maintain confidence in libraries.

ii. Library Statistics Manifesto

"Libraries and information services serve society by preserving memory, feeding development, enabling education & research, and supporting international understanding & community well being."

iii. Library statistics: Need and Importance

Quantitative and qualitative data about library services, library use and library users are essential for revealing and confirming the outstanding value that libraries provide. As the informative value of such statistics depends on their comprehensiveness and speed, the participation of all libraries in the country will be necessary.

Library statistics are necessary for the effective management of libraries, but they are still more important for promoting library services to the different types of stakeholders: policy makers and funders, library managers and staff, actual and potential users, the media and the general public. Where statistics are aimed at policy makers, managers and funders, they are essential for decisions on levels of service and future strategic planning.

iv. What library statistics show

The input into libraries (resources including buildings and equipment, staff and collections), and counting the output, the usage of traditional and new electronic library collections and services, libraries show that their services are adequate to the respective population. Comparing input and output data demonstrates whether libraries are organizing their services in a cost-effective way. Data about the use and acceptance of library services can also indicate the outcome of libraries on the population. Such outcome (on literacy, information seeking skills, educational success or social inclusion) will be more visible where qualitative data from user surveys are added to statistical results.

v. Quality of library statistics

Correct, reliable and comparable data are crucial for the value and usefulness of library statistics. Libraries are not all under the same authority. Most of them serve specified institutions (universities, commercial firms) or communities. Therefore various institutions and organisations with differing objectives may feel responsible for collecting data about the libraries within their authority. The collection of library data will always start in the individual library, but the aim should be a compilation of the data on the regional and national level. For this purpose, libraries should collaborate to form regional/national networks for library statistics in order to ensure that a national library system is running effectively.

10.1.2 International Organisation for Standardization (ISO)

ISO 2789:2006 specifies rules for the library and information services community on the collection and reporting of statistics

10.1.3 National Information Standards Organisation

Since 1968 NISO has maintained a national standard for Library Statistics, ANSI/NISO Z39.7 (This standard was last revised and issued in 1995 and is now up for its regular five-year review..

10.1.4 Bureau of Indian Standards

IS 12940 Documentation – Library Statistics Guide. Issued in 1990 in Four pages.

10.1.5 American Library Association: Office for Research and Statistics

a. Mission

The Mission of the Office for Research and Statistics (ORS) is to provide leadership and expert advice to ALA staff, members, and public on all matters related to research and statistics about libraries, librarians, and other library staff; represent the Association to Federal agencies on these issues; and initiate projects needed to expand the knowledge base of the field through research and the collection of useful statistics.

11. Type of Library Statistics

The practices and functions in libraries vary from one another library. According to Mittal (Mittal, 1984) the statistics from libraries would fall into the following three classes:

a. Statistics of technical departments
b. Statistics of service departments
c. Other statistics.

The Statistics of technical departments would be under the headings:

a. Classification
b. Cataloguing
c. Book acquisition
d. Periodicals/Serials Acquisition

The Statistics of service departments would be pertaining to:

a. Circulation section
b. Reference section

The Statistics of other departments would fall under;

a. Administrative such as;
b. Library Staff, their strength, qualifications, experience, special skills etc.
c. Library Budget or Finances
d. Physical facilities

a. Statistics in Classification and Cataloguing Sections:

In the case of classification and cataloguing sections, the statistics has to be maintained about the number of items classified in a month consolidated for a year. It may also include the names of the library staff who are engaged in these activities. In case of cataloguing it might also include number of cards prepared for the month in a traditional library system and if in case library catalogue is automated, the statistics on number entries made (Data entry) and if any item either is missing or mutilated a suggestion would follow to the acquisition section for action.

b. Acquisition section – Books and Periodicals

This section might compile statistics on number of books and other reading materials in print and electronic form are received in the library. The data can be divided by subject, department and/or by the vendor.

c. Statistics from Circulation Section

The statistics from service section mainly pertaining to the circulation section. It is one of the very important sections which directly come in contact with the user. The statistics from circulation section is also very vast and of different activities from simple to complex and sometimes it is collected directly from the circulation section.

The compilation of statistics in the circulation section starts with the maintenance of a visitors register at the entrance gate of the library. It starts with the maintaining a Visitor Register (most appropriately Gate Register). The utility of the gate register need not be overemphasized. The circulation section may also concentrate on the statistics from textbook section, reference section, Periodical section and then General reading room.

The most important and dynamic section of the circulation department is the Lending or Book Circulation Section. It has to have all details; about registered borrowers by category. Besides this the simple and useful one is on number of books issued, returned, reservations, The subject - wise sorting of books under circulation though very tedious but is important. This can be extended to by type of material, about overdue books and the fine collected.

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