Use of Information Technology for Library Housekeeping Operations

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In this current information technology age, use of computers for library housekeeping operations is not simply feasible, but inevitable. It has become a necessity than anything else. Many networks are now emerging in India. For participation and also the effective utilisation of network resources, it is necessary for the participating members to automate their libraries. Although required hardware for library automation is now available at a reasonable cost; software packages are however not easily available. Before introducing automation, a comprehensive evaluation of the library requirements, software features needed, and capabilities of the hardware for implementing the software has to be made.

AUTOMATED CIRCULATION CONTROL SYSTEM (ACCS)

Circulation as a library function is a very specific and well defined operation. It is concerned with the clerical function of keeping track of documents taken out or returned by the user. The scope of an ACCS can be either traditional or broad depending upon the design objectives established by the library. Thus, one of the basic considerations in the design and selection of circulation system is defining the role and objectives of a circulation system in the library. A typical ACCS performs some or all of the following functions:

Provision of information for the location of items under circulation-either all items in the library or only those items on loan or elsewhere, i.e., at the bindery, on reserve, being recatalogued, etc.

Identification of items on loan to a particular borrower or class of borrowers, Recording of holds or personal reserves for those items on loan but desired by another borrower, often with additional provision for notifying the library staff when the desired item is returned and printing notice to the requester about the availability of the document.

RENEWAL OF LOANS.

1. Notification to the library staff .of delinquent borrowers either at the time of an attempted loan or when the borrower is leaving the institution or on request from the library.

2. Calculation of fine, printing of overdue notices, recording the receipt of fines, and sometimes printing details of fine receipts.

3. Calculation and printing of statistics.

4. Provision to handle special .categories of users and special types of materials.

5. Provision to print due date slips.

Obviously, these functions are in addition to the primary functions of the system-charging and discharging. To achieve these objectives, the ACCS is designed to record and manipulate the following three kinds of information (who borrowed what and when): information about the borrower information about the document Information about transactions these data are collected in a variety of ways. They may be written on a slip entered by the borrower or by a library clerk and then keyed into the system. Alternatively, the minimum possible data elements pertaining to the documents and borrowers may then be obtained automatically from pre-punched machine-readable cards. The complete information of borrowers and documents then be obtained from permanently stored users' and items' files respectively. In a micro-computer system, information about users and documents may be appropriately displayed on the screen by keying in the identification code number and then the relevant information may be re-written on a transaction file along with the transaction data. Information regarding the documents can thus be considered either as transitory (i.e., recorded in the transaction file when only single item is removed from its normal location-absence system) or as

permanent-inventory system (i.e., stored in the transaction file irrespective of where the book is-inventory system). The data structure and the medium to store the necessary information may depend upon the above two systems. Usually, in a typical ACCS, transaction file, user file, document file and reservation file are maintained. Data elements in these files depend upon the above two systems-absence or inventory systems.

AUTOMATED CATALOGUING SYSTEM (ACS)

The primary objective of an ACS is to create user access catalogues either by online or CD-ROM or microform. In a typical ACS, the following files are maintained and operated:

- Bibliographic file consisting complete cataloguing elements, as required by MARC, CCF, etc.)
- Authority control file
- Catalogue/database, often known as online/off-line public access catalogue
- Item file consisting of records for each documents
- Shelf-list which is separately maintained in the ACS for convenience and security reasons
- Accession file, which strictly speaking is a part of an automated acquisition control system.

The bibliographic and authority control files are usually accessed only by the library staff i.e., those who are involved in cataloguing. Users may be allowed free access to the catalogue/ databases; sometimes users are even allowed to access authority control file but not allowed to edit the authority control file.

An item file is primarily maintained and operated by the library staff to provide services like circulation, document location, etc. The shelf list and accession file are usually operated and maintained by the librarian.

The concept of main entry in any ACS is not that important as compared to the card catalogue, since any data element may retrieve the entire record. Further, in recent years, considerable attention has been given to 'authority control device' in ACS, since it is necessary for effective use in online public access catalogue (OPAC). Authority control service of any other bibliographical information system can also be adopted, without much difficulty, in the local ACS.

In a typical ACS, cataloguing and database management modules must have 'interfaces' with other modules. However, editing capabilities are to be made available only at designated staff terminals; there must be a provision for error-check module to detect and correct common errors. In any ACS, the provision should be made to share the bibliographic file by all its components. It must have the capacity to provide full MARC bibliographic records and the necessary index. It must accept, retain and output complete bibliographic records either in MARC or Common Communication Format (CCF) or any other format similar with I S 0 2079 standard. It must be able to accommodate and allow access by a variety of classification schedules.

Item file consists of records pertaining to items; items may be monographs, serials, Govt. documents, media, or any other type of materials. Item records contain an item-specific label number, indication of adult or juvenile level, fine level, call number, location, holding facility, and loan period. It also contains the due date, last discharge date, number of circulations since a specified date, holds against the item, etc. This file is maintained primarily for ACCS, especially in the inventory system. The system must be capable of supporting four levels of record display:

1. **Level 1 (Minimum) :** Author, title, call number, publication date

2. **Level 2 (Brief):** Location, call number, main entry, title, sub-title, series, edition, holdings, circulation status

3. **Level 3 (Full):** The data elements as in Level 1 along with notes, and other information normally found in a catalogue card.

4. **Level 4 (Full MARC):** Including all tags, indicators, subject codes, fixed field and variable field data elements.

CONCLUSION

Digital technology has raised the hopes and expectations of people to face the challenges of not only bridging the gap between the information rich and the information poor in the country, but also uplifting the level of development in all its different facets. Major responsibility now rests on the decision makers, technological experts, librarians, educationists, social workers, legal experts, publishing industry as well as the local institutions to play their respective roles in bringing digital information in need based comprehensible form and language to the diverse clientele of the country. No agency can really work in isolation to reach the expected goal in the right manner. Therefore coordinating agencies may have to be established on a distributed regional basis to understand local requirements and thereby assist policy planners in preparing proper guidelines for useful and sustainable digitization Programmes. The available technical infrastructure and the networks in existence may now be

utilized while initiatives for more sophisticated technology becomes successful in creating proper infrastructure to deal with the multi-lingual and multi sect oral information required for the vast majority of Indians. Just as the audiovisual media such as TV and radio have reached every corner of India, digital technology will one day become a household facility in distant parts of the country. Since Indian decision makers have now understood that Information is power and information based decision making has become the order of the day, the Government of India and other agencies are taking necessary steps to improve the telecommunication and other technical facilities to make IT based Information access a reality in the true sense so that there can be substantial improvement in the quality of life of every Indian.

Library automation activities are gaining momentum throughout the state. It is quite a good sign that SOUL is now available at an affordable cost as a comprehensive library automation package. However, librarians should be prepared to meet the challenges. They should acquire adequate knowledge about the hardware and software options available. All libraries should use standard software packages for automation and database creation to facilitate the exchange of bibliographic records between libraries. Databases may preferably be created in the MARC21 format because most libraries at the international level follow this. There is need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs.

REFERENCES

1. ALEXENDRIA. Computer Basic, Time Life Books; 1989; P4

2. ARORA (AM). Application of Computer in libraries: A Union catalogue acquisition of periodicals, Workshop on Computer techniques in information processing. Delhi University; 1980; Paper – II.

3. BRUCH (JG) and STARTER (FR). Information system; Theory and Practice. Haydu Books; 1974. New Jersy: P44.

4. BURTON (Paul). Microcomputers as innovation: Policies for implementation in libraries and information service. Electronic Library. 5,4; 1987; P210-220.

5. CHADHA (ON) and GUPTA (BM). India National Scientific Documentation Centre; P59-60. In GUPTA (BM) etc. ed. Hand book of Libraries, archives and information center in India. VI; 1990 New Delhi; Aditya Prakashan.

6. CHANDOK (S) . Computer application at IGNOU library. Slant.31,2; June 1994;P 66-86.

7. CHOTEY LAL. Indian Agricultural Research Institute Library; Handbook of Library's Archives and Information center. edited by-BM Gupta. 5V. VI Information Industry Publication. New Delhi; 1985; P 30-40.

8. CHOUDHURY (S) and CHOUDHURY (GG) .Development of library management system using micro CD/ISIS. Annals of Library Science and Documentation 39,3; September 1992; P113-122.

9. CHOEN (Elaine) and CHOEN (Aaron) Automation, space management and productivity : A guide for libraries; 1981. New York: Bowker; P220.

10. CORBIN (John). Implement the automated Library system; 1988 Phoenix; Oryx Press; P149.

11. DE GENNARD (R) Library automation and networking; Perspective on three Decades. Library Journal. 108,1; 1993; P 624-30

12. DESIDOC NEWS .2,2 Oct; 1996.

13. GANGULY (SM). Towards an information Society. IASLIC Bulletin. 40,1 March 1995; P 17-20.

14. HARAVU (LJ) Library Automation and networking: An Overview of recent Developments. Annals of Library Science and Documentation. 40, 1;1; 1993; P 32-40]

15. HUNT (Roger) and SHELLY (John). Computers and Commonsense. Prentice Hall of India; 1985 . New Delhi; P4-8

16. IARI. In the Service of Nation. IARI (ICAR). New Delhi; 1966.

17. IARI – Today. IARI. New Delhi; 1996.

18. INSDOC. In the Service of Nation; 1996.

19. KONNUR (MB) and RAJENDRA (AR). Automated libraries : Some Experiences. Herald of Library Science. 33,1-2; Jan-April 1994; P24-28.

20. KUMAR (PSG). Computerization in Indian Libraries. B.R. Publishing. Delhi; PXXV.

21. MACHOVEC (GEORGE S); Broad casting the role of the system librarian Online Libraries and Microcomputers. 7, 10; 1989; P1-4.

22. MACHOVEC (George S) Physical security of library computer equipment, On the libraries and Microcomputers, 6,5; 1988; P1-3.

23. MAHAPATRA (Piyush Kanti). The Computer in Library Services: World Press. Calcutta; 1985; P85.

24. MALVIYA (Ramanand) and SUNDARAJAN. On-line services for library and information centers and its importance. Slant. 33,2: June 1996; P93-99.

25. MERRIFIELD (Bruce). Innovate, automate or evaporate Span; 10; 1996. P38-9.

26. RASHID (Abdul). Library Automation : An Overview. Slant. 33,1; March 1996; 45-54

27. RELAN (S). Adoption of CD-ROM in Libraries. Herald of Library Sciences. 33;1-2; Jan- April 1994; 35-40.

28. SAFFADY (William). Library automation; An Overview. Library Trends. 37,3; 1989; 269-81.

29. SCIENTIFIC DOCUMENTATION (Indian National Center). Annual Report; 1994-95. Delhi- INSDOC>

30. SHARMA (CD) and OJHA (DC) ed. Advances in Library and Information Science. 5V.V2: Information System: Agricultural and Environment. 1989. RBSA Pub. 1981.

31. SINGH (AP). Lecture note on Agricultural Information System at National and International level.

32. SINGH (SP). Automation in Indian libraries. 1975. New Delhi, Metropolitan. P 263.

33. SRIVASTAVA (AP). From Departmental Libraries to National Network. ILA Bulletin. 25,4; Jan-March 1990; 157-78.

34. TEDD (LA) Introduction to Computer Based Library Systems. 1977. London, Hyden; Pp 175.

35. VARALAKSHMI (KSR). Emerging Tends in Information Technology and its Impact on Library Environment. IICE. 11,2; September 1992; 232-43.

36. VASHISHTHA (CP). Papers and proceedings of the thirty third all India Conference. 1987; ILA. Delhi;P63.

37. YASHPAL. Beyond Information. Beyond Technology. IASLIC Bulletin.40,1; March 1995; P9-16.

38. Misra, V. N. and Phadke, D. N. “Information Technology and Libraries” In Computer Application in Library and Information Science, edited by D. C. Ojha. Jodhpur: Scientific Publisher,1995.

39. Fertig, Robert T. The software revolution: trends, players, market dynamics in personal computer software. New York: North-Holland, 1985.

40. Francis, A.T. Regional Information Networks: necessary thrust area for INFLIBNET to establish integrated information system in India. In "Information Technology applications in Academic Libraries" edited by A.L. Murthy and P.B.Mangala P. 102- 106.Ahmedabad: INFLIBNET, 1997.

41. International Development Research Centre. MINISIS: information management solutions. Ottawa, Canada: IDRC.(Leaflet).

42. National Academy of Agricultural Research Management. Proceedings of the workshop on Software Review for Library Automation, Hyderabad, July 28-30, 1997.

43. Rowley, J.E. Guidelines on the evaluation and selection of library software packages. ASLIB Proceedings 42(9) P. 225-235.

44. Sreedevi Ravindran. Status Report on the use of Micro-ISIS in India:1997. Paper presented at the 7th CDS/ISIS Users' Group Meet, Bhubaneswar, 26-28, Nov. 1997.

45. Kaul, H.K. Library resource sharing and networks. Virgo Publication, New Delhi , 1999.

46. Murthy, T.A.V. Resource sharing and consortia for India. Proceeding of the Seminar held at IIT , Kharagpur, Feb. 2002. Pp.14-15.

47. Rama Verma and Janak Raj, ‘‘Practical aspects of library automation in the Indian context,’’ In Information Technology Application in Academic Libraries, edited by A.L. Moorthy and P.B. Mangla (Ahmedabad:INFLIBNET Centre, 1997) pp. 10–14.

48. Ravichandra Rao, I.K., ‘‘Automation of academic libraries in India: status problems and future,’’ In Information Technology Application in Academic Libraries, edited by A.L. Moorthy and P.B. Mangla (Ahmedabad:INFLIBNET Centre, 1997) pp. 1–4.

49. Salgar S.M., ‘‘Network services for libraries. Automation of academic libraries in India: status problems and future,’’ In Information Technology Application in Academic Libraries, edited by A.L. Moorthy and P.B. Mangla (Ahmedabad:INFLIBNET Centre, 1997) pp. 78–81.

50. Rajesh Chandrakar, Premchand and Murthy T.A.V., ‘‘INFLIBNET Centre: bridging the digital divide in Indian academic libraries,’’ In Library and Information networking, edited by H.K. Kaul and M.D. Baby (New Delhi:Delnet, 2002) pp. 45–54.

51. Cholin, V.S., Vijayakumar J.K., and Murthy T.A.V., ‘‘Resource sharing in the digital environment in India: role of INFLIBNET,’’ Library Hi-Tech News, 20(2003): 10–13.

52. Vijayakumar J.K. and Manju Vijayakumar, ‘‘Knowledge, Connections and communities: a special reference to Indian University Libraries,’’ The International Information & Library Review, 35(2003): 375–382.

53. Manoj Kumar Sinha, ‘‘Scenario of automation and networking of library and information centers of north eastern region of India: an evaluative study,’’ In Information Technology Application in Academic Libraries, edited by A.L. Moorthy and P.B. Mangla (Ahmedabad:INFLIBNET Centre, 1997) pp. 1–4.

54. Anil Singh, ‘‘Library automation and networking software in India,’’ Information Development, 19(2003): 51–55.

55. http://www.ugc.ac.in

56. http://www.inflibnet.ac.in