LIBRARIANS: AN INNOVATIVE APPROACH TO LIBRARY SERVICE : A CASE STUDY ON TECHNICAL UNIVERSITY LIBRARIES IN INDIA

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Abstract

Now much of the innovation literature focuses fully on library services. While scholars have begun researching innovation in library services, the field of service innovation remains undeveloped and relatively immature. This paper begins with the basic differences between the services provided by the library building in physical terms and innovative library services with the use of Web 2.0. Again a critical study has been made on the three service concerns innovative libraries that represent detailed information regarding five specific innovation decisions. The paper makes comparison, contrasts and integrates these five innovative decisions which will develop new libraries and improve the existing libraries with advanced and innovative services that can fulfilled the needs of the library users. This paper is also an attempt to study how the advanced and innovative services of libraries can meet the objectives of 5 laws of library. We conclude by drawing attention to future research that might advance the development of service innovation theory and the ultimate generation of a general innovation theory that includes both library study material and their services.

Keywords : Service Innovation, Web 2.0, Innovative Library Services, Semi-Public Library, application of five laws of library

Introduction

Despite representing more than 80% of occupation and more than half of user expenditures in the SAARC countries services have received little attention from the innovation community within professional institutes. While management specialists continue involved in innovation, much of their focus has been upon library services. Some management intellectuals have described services innovations as determination of customers' needs and how effectively and efficiently their needs can be fulfilled in different innovative tools by the service provider.

The subject, Service Innovation represents a major gap in the innovation literature, a gap which this paper addresses. Service Innovation in library services can improve the effectiveness of library knowledge management which ultimately helps not only to the students but also to the faculties, research scholars of various institutions as well.

"Service Innovation may be defined as the use and improvement of various latest technologies to provide better and timely services to the users within a reasonable cost for the development of the users as well as the society as a whole."

In today's world library system is not a job where only one professional person is appointed to handle all the activities of library but it has become a job with a varied activities handled by many professionals like Librarian, Librarian Administrator, Content Developer, Content Designer, Content Manager, Web Site operator, Data Entry operators etc. to provide effective and efficient services to interested people. Libraries also require certain service innovations so that it can fulfil the need of users.

To understand the nuanced distinction between the physical services provided by the library and the library services by Web 2.0, it is necessary to explain these two terms in details for a better understanding to the readers.

PHYSICAL SERVICES PROVIDED BY A TRADITIONAL LIBRARY

A library organised by public body, an institution, a corporation, or a private individual.is a collection of sources of information and similar resources, made accessible to a defined community for reference or borrowing. A library's collection basically includes books, journals, newspapers, films, maps, prints, documents, CDs, videotapes, D VDs, cassettes, Blu-ray Discs, etc. Besides that, libraries also provide the services of expertized librarians who can help in finding and organizing information and at interpreting information needs. Traditional libraries always provide quiet and peaceful areas for studying, and also helpful for group studies.

INNOVATIVE LIBRARY SERVICES WITH THE USE OF WEB 2.0

With the use of Web 2.0 a new and significant term has been emerged named Library 2.0. Technology. Such innovation changes the face of library system and brings a revolution of Digital Library. Library 2.0 can provide library services in such a simpler way that the people can avail the many library facilities even from their homes within a reasonable cost. Library 2.0 is an online library service, the benefit of which can not only be derived from the computers but also by the use of many smart and android phones. As we know the demands of smart and android phones are increasing day by day the physical services provided by the traditional libraries are decreasing as many library users are preferring the services of Library 2.0. Many library users are stating that now they are keeping a library in their pockets. Moreover, continuous evaluation and updating of Library 2.0 services are able to fulfil the changing requirements and demands of the users. Such innovative services has no geographical limits, any one even from a different country can also avail these services without any restrictions, as in case of traditional library services.

A COMPARATIVE STUDY BETWEEN TRADITIONAL LIBRARY SERVICES AND LIBRARY 2.0.

- The services of traditional library are limited to a regional area where as there is no such geographical limits of services of Library 2.0.

- The construction and maintenance of traditional libraries requires top heavy expenditure as compared to that of library 2.0.
- Availing library services from traditional library is a time consuming process. On the other hand library users feel convenient in getting their relevant information from library 2.0 without consuming much time.
- The facilities of traditional library can be availed within the working hours and working days of library while there is 24 x 7 hours facilities of library 2.0.
- The evaluation and upgradation of library 2.0 is less expensive than that of traditional libraries.
- Library 2.0 is criticized on the ground of power failure, network failure, prone to hackers and may not be affordable by those persons having no knowledge about computers which is not there in case of traditional libraries.
- Traditional libraries have the unique facilities of providing quiet atmosphere for studying, to the interested scholars.

Library in this modern world is providing both type of services i.e. Physical Services and Online Services. A critical study has been made on three innovative libraries.

Vikram Sarabhai Space Centre (VSSC) : is a premier research and development centre under Indian Space Research Organization (ISRO), engaged in the development of satellite launch vehicles for the Indian Space Programme. The center has many scientists, engineers and technical staff from various disciplines in physical sciences and technology areas, who are involved in research activities. VSSC Library is the largest Information center under ISRO which caters to the library and information requirements of the scientific and technical community of the centre.

VSSC Library was established in the year 1963 and currently houses 3 lakh documents in print format and has 4000 registered library patrons. Now 705 (579 with online access) scholarly journals in science and engineering along with few popular magazines in the field of science, management and humanities are subscribed by the library. Since 2011 library started migrating from print to online for majority of the technical journals and at present 460/705 titles are subscribed as online only. Library also introduced next generation access tools like Web-scale Discovery Service, off campus access, etc. to provide online resources services .Fast, Reliable, Instant, Efficient Network for the Disbursement of Services is part of the library IT Mission. FRIENDS counters handle 1,000 types of service originating out of various PSUs. The payments of overdue charge that users can make university fees, etc. Manipulation of data is avoided with the help of using Firewalls. The application has provisions for adding more modules and for rolling back incorrect entries without affecting the database even at the user level. A sole feature of FRIENDS is a provision for adding more modules and a queue management system.

Institute of Science Education and Research (IISER) Pune Library: The Department of Information Technology has made the contribution in the development of the Indian Computer Emergency Response Team (CERT-In) to be a part of the international CERT community. It is compulsion for the team to respond to computer security incidents

reported by the entire computer and networking community in the country along with creating security awareness among the institutional-community. To increase the level of security of Libraries Communications and Information Infrastructure through proactive action and effective collaboration. It is the responsibilities of CERT to:-

- Serve as a central point for responding to computer security incidents and provide a reliable, trusted, 24-hour referral contact for emergencies.
- Increase awareness and understanding of Information security and computer security issues among Indian cyber user community.
- Alert the community on latest security threats in the form of advisories, vulnerability notes and incident notes.
- Serve as a coordinator among organizations to solve computer security issues.
- Implement the RFID system. Radio Frequency Identification (RFID). The applications of RFID can lead to the reduction of staff costs, enhance service, provide a constant update of library collections, avoid book theft and facilitates stock verification with an ease, holding management, but also attain real-time services. Due to certain limitations like inference due to noise, heavy expenditure on its introduction and without killer application, many libraries are only experimenting with RFID for holding management. RFID provided with these characters of batch access, storage mass data, and reprogram that were barcode cannot archive. Integrate both parent and holding with functions of RFID to extend various application. Barcode and magnetic strip can be replaced then archive there advantages for book identification, for the sorting and conveying of library books and study materials.

**Mohinder Singh Randhawa Library Punjab Agricultural University (e-Pustkalya) :**
This library is in the memory of a distinguished university vice chancellor. Now the library is 61 years old and containing about 700,000 books and audio and visual materials also. Panjab University, established in 1882, is one of India's oldest and most renowned universities of higher studies, with some 9,000 students on its 550-acre campus. 3M Library Systems will integrate and install the RFID systems, and prepare the library staff for their proper use. 3M will supply an initial volume of 400,000 RFID tags, guaranteed for the life of the objects to which they are attached; two Self Check System R-Series units for unassisted customer checkouts, a Self-Check System C-Series book drop for automated returns, two Model 8900 single-aisle detection systems for security, and two Digital Library Assistants for collection management. Registration process, bring speed, efficiency, consistency and reliability, substantially improve the users interface etc. the users CARD project, about 80% of all land registration transactions in AP were carried out electronically. Since 60% of the documents, Encumbrance Certificates (ECs) and certified copies relate to agricultural properties, the success of the CARD project has great benefit for the rural farming community.

Installation is expected to be completed by mid-January. Dr. V.K. Anand, chief librarian, said he is hopeful that following implementation and a trial operational period, the RFID systems will enable the library to remain open 24 hours on an everyday basis.

Level of satisfaction of 68* library users using the advanced and innovative services of libraries

Innovative Library Services	(Poor)	(Fair)	(Very Good)	(Excellent)
Internet Service	0 (0%)	2 (2.94%)	5 (7.35%)	61 (89.70%)
OPAC/Web OPAC	3 (4.41%)	6 (8.82%)	58 (85.29%)	1 (1.47%)
Audio Video Facility	2 (2.94%)	44 (64.70%)	8 (11.76%)	4 (5.88%)
Web 2.0 (Library 2.0)	0 (0%)	2 (2.94%)	32 (47.05%)	24(35.29%)
Current Awareness Service	7 (10.29%)	34 (50.00%)	25 (36.76%)	2 (2.94%)
Document Delivery Service	1(1.47%)	0 (0%)	9 (13.23%)	58 (85.29%)
Inter Library Loan	0 (0%)	10 (14.70%)	13 (19.11%)	45 (66.18%)

* The sample size in calculated on the basis of 90% Confidence Level and 60% Probability of Accuracy
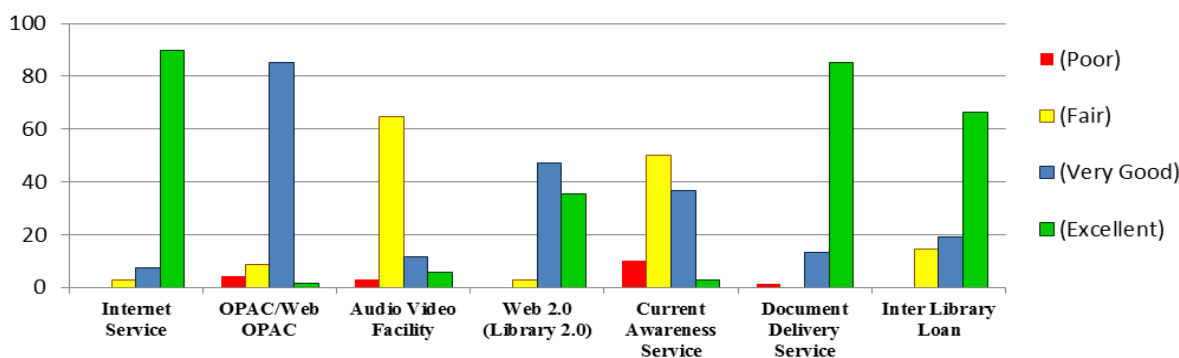
The above table and bar charts reveal the level of satisfaction of 68 library users who are well acquainted with the advanced and innovative library services. Maximum number of users i.e. 61 is fully satisfied with the internet facilities. The opinion of users are quite good as they are able to use the internet facilities at the same time when they are in library which ultimately fulfil all the purpose related to their studies and research. The satisfaction level of 85.29% of users is very good but only 1.47% are highly and 4.41% are not satisfied, this is because the OPAC/Web OPAC services is in developing stage and it is unable to represents all study materials in libraries.

Audio Video Facility cannot satisfy the library users yet as the Audios and videos of limited number of branches are only available now, due to which majority of the users i.e 44 (64.70%) are having fair level of satisfaction with this service. A great positive response can be seen for Web 2.0 as 24 users are getting excellent level of satisfaction and 32 users are getting very good level of satisfaction. So far as Current Awareness Services are concerned majority of the users are getting fair level of satisfaction as they opined that they came to know about the many new services of library from their friends but not from the library itself. Document delivery service also creates a good impression on the users as they are able to get the relevant even from their homes but just a negative response due to delay delivery of the documents. Inter Library System is an innovative services specially for research scholars and excellent level of satisfaction can be achieved

by 66.18% of users but others are giving less positive response as they have to pay a fairly high price for such facility.

The above three case studies highlight 5 innovation decisions

1. **Use of OPAC and Web OPAC for Searching library materials**. OPAC means Online Public Access Catalogue. It is a database of library or group of libraries so that any library user can access such database to know the study materials (books, CDs, DVDs, cassettes, videotapes, articles, etc.) available in the concerned library or libraries. OPAC can also be used by the library users from their homes with the help of Web OPAC. Such innovated service saves the time of users in searching their required study materials stored in various libraries.

2. **Functioning of Libraries with RFID Systems** : Radio-Frequency Identification (RFID) is a wireless system of using electromagnetic fields. This System automatically identifies and tracks the chip attached with the books and materials of the library. It is one of the self-service scheme where a library user can take his required books and automatically the identity of the books, name of the user, date of issuing the book is recorded in the e-register of the library. The library using RFID system does not allow the users to take any book or material unless a proper procedure of recording of issued books and about its user, is followed which ultimately avoid the risk of theft. To avail the facilities of such library the users are required to be a member and the nominal charges for using the materials of library will be automatically deducted from the bank balance of the user. It also helps in proper arrangement of all materials of the library. Such system also needs less human resources and helpful in reducing the monotonous work of librarian.

3. **NPTEL (National Programme on Technology Enhanced Learning).** The facilities of e-learning through online web and video courses can be derived from this programme. Now a days e-learning through online web and video courses changes the face of education sector and eliminates the distance between the expert faculties and interested scholars in concerned subjects. The adoption of NPTEL by the libraries can improve the students' level of knowledge and learning. Even the students from a backward or rural area can avail such facilities within a reasonable cost. The classes of CA and CS in Kolkata, Engineering and Medical Entrance Preparation in Kota, Management Classes in Delhi are the live examples from which the students are benefited. Even an interested student who is having proper Internet facilities with an optimum speed can also avail such facilities even from his home by paying a nominal charge to the library nearby or by paying to a library if it is distant from his home through net banking or mobile banking. The experienced faculties of high technical institutes like IITs, IIMs etc. will also get an opportunity to share their thoughts, beliefs and knowledge to a wide number of students without any geographical boundaries.

4. **Inter Library Loan System provided by DELNET**: DELNET was started at the India International Centre Library in January 1988 and was registered as a society in 1992. It was initially supported by the National Information System for Science and Technology (NISSAT), Department of Scientific and Industrial Reseach, Government of India. It was subsequently supported by the National Informatics Centre, Department of Information Technology, Ministry of Communications and Information Technology, Government of India and the Ministry of Culture, Government of India. [1] http://www.delnet.nic.in/

It is not possible for any library to collect all types of materials and stored these under one roof. The major purpose of such establishment is to promote the sharing of resources among the libraries. A user of a library can use the study materials of an another library by the use of DELNET. In this Inter Library Loan System one library on the request of a library user can bring resources from an another library for a specified duration only. Such facilities are quite helpful specifically for the research scholars.

5. **Development of Semi-Public Libraries :** Besides students, faculties and scholars there are many persons in the society like service-persons, homemakers, businessmen pursuing their higher education etc. are also interested to avail the facilities of libraries. As there is a lack of public libraries in every region it is quite a difficult task to avail the benefits of library services. The libraries of the universities are only used by the concerned students and faculties. The people of the particular locality and the students or scholars of other institutions are deprived of the facilities provided by the libraries. Conversion of libraries of various universities into semi-public libraries will be an innovative decision from which not only the interested library users of the locality but also the concerned universities will be benefited. The Universities' libraries can be converted into public libraries for limited hours per day only, in consideration of which the university can also charge a fairly high fees from the outside users as a result the university can get some extra funds for the maintenance and improvement of the libraries in future. Such facilities will be a large contribution to the nation as well to uplift the level of knowledge and learning of the societies.

The innovation decisions will be helpful to achieve the objectives of the five laws of library given by S.R. Ranganathan

The First Law as per advance library needs: making a book accessible to readers is primary goal. This can be achieved if all significant works of science, literature, art are being digitally preserved. Provide multiple modes of access to users by exploring technology like OPAC/WEB OPAC and WEB 2.0.

The Second Law : Library collection should be such so that it could cover every part of the community. It is meant to serve like open source courseware animation repository and national mission on ICT for education and animations are being created to support the online lectures video through NPTEL.

The Third law : If a book is not being used often it needs exposure to groups of readers who will find it useful. The description about the book along with its contents should be disclosed through OPAC so that it can attract the useful users.

The Fourth Law : If users find what he is looking for in a timely manner, they will be more satisfied. The library interface should be designed in such a way that the user will be able to find the study materials without any delay which ultimately increase the loyalty of users upon the library.

The Fifth Law : Libraries should diversify, innovate and adapt its offerings to its users.

Without the human and organizational changes that occur, the library would neither function properly, nor meet its purpose. With majority of public libraries situated in rural India, this is a great opportunity for the cybercafés, government's E-governance projects can operate out of public libraries. Cases like :-

- Gyandoot: An intranet in Dhar district of Madhya Pradesh that connects rural cybercafés and offers services like Landholders passbook, BPL family list etc.
- E-governance centers like the Akshaya Project (Kerala)

These Libraries can expand their horizons to function as career counselling centres for the youth. Again the establishment of Semi-Public Libraries can also meet the requirements of many interested people of the societies. Librarians themselves can upgrade their expertise through continuing education programs and skill enhancement to make full use of ICT technologies.

Conclusion

The primary aim of Service innovation is to provide the services in such an innovative way so that the users can get maximum satisfaction in terms of time and cost savings. In this modern era providing innovative services is more significant than heavy advertisements. The market where the rational consumers are living, cannot be dominated by the advertisement but can be attracted and satisfied by innovative services. There is a saying "customers create customers" similarly the Library Service Innovations can help in the development and establishment of many advanced libraries in the nation for the purpose of advanced teaching and learning.

References

- Alam, I. and Perry, C. (2002), "A customer-oriented new service development process", Journal of Services Marketing, Vol.16, No. 6, pp.515-534.
- Blyberg, J . (2008, January 17). L ibrary 2.0 debased. Message posted to http: / /www.blyberg.net /
- Booth, C. (2008). Developing Skype-based reference services. Internet Reference Services Quarter ly, 13(2/3), 147-165. Retr ieved December 1, 2008, from L ibrary, Information Science & Technology Abstracts database.

- Booth, C. & Guder, C. (2009). If you build it, will they care? Tracking student receptivity to emerging library technologies.in D. Mille R, Ed., Pushing the edge: Explore, extend, engage.proceeding, ACRL 14t h National Conference. Chicago: American Library Association.
- Burgleman, J .C., Osimo, D. , Pascu, C. , Turlea, G. , & Ulbrich, M. (2007). The potential disruptive impact of Internet 2 based technologies. First Monday 12(3). Retrieved August 10 , 2008 f rom http: / /www. f i rstmonday.org/ issues/ issue12_3/pascu/
- Caruso, J . , Katz, R., Salaway, G. , Kvavik, R., & Nelson, M. (2006). The ECAR study of undergraduate students and information technology. Ret rieved July 3, 2008, from http: //connect.educause.edu/ecar/
- Caruso, J . , & Salaway, G. (2007). The ECAR study of undergraduate students and information technology: Key findings. Retrieved July 3, 2008, from http: / /connect.educause.edu/ecar/
- Chapman, S. , Creech, M. , Hol lar , S. , & Varnum, K. (2007). Main library gateway library web survey: Results and preliminary analysis. Unpubl ished s tudy. Ret rieved July 15, 2008, from http: //www. lib .umich.edu/usability/projects/LibGateway.html
- Council for Library and Information Resources. (2005). Library as p lace: Rethinking roles, rethinking space. Retrieved January 22, 2009, from http: //www.clir.org.
- Deiss, K., & Petrowski, M. (2009). ACRL 2009 strategic thinking guide for academic librarians in the new economy. Retrieved March 25, 2009 f rom http://www.ala.org/ala/mgrps/divs/acrl / issues/ future/acrlguide09.pdf
- De Rosa, C., Cantrell, J., Hawk, J. , & Wilson, A. (2006). College students' perceptions of libraries and information resources: A report to the OCLC membership. Accessed June 20, 2008, f rom http://www.oclc.org/reports/perceptionscollege.htm
- Intelligence Unit. (2008, October). The future of higher education: How technology will shape learning. Retrieved November 26, 2008, from Economist Intelligence Unit database.
- Ford,G.(1973).Progress in documentation: research in user behaviour in university libraries. Journal of Documentation, **29,** 85-106
- Katz, I. R., & Macklin, A. S. (2007). Information and Communication Technology (ICT) Literacy: Integration and Assessment in Higher Education. Systemise, Cybernetics and Informatics, 5 (4), 50-55.
- 2Morgan, S. (1996). Developing academic library skills for the future. Library Review, 45 (5), 41-53.
- Salam, V., & Singh, I. S. (2007). Innovative Practices in Library Services: A case Study of Manipur University. Scupola, A., & Nicolajsen, H. W. (2010). Service Innovation In Academic Libraries: Is There a Place for the Customers? forthcoming In Library Management , pp. 304-318.
- Scupola, A., & Nicolajsen, H. W. (2010). Service Innovation In Academic Libraries: Is There   a Place for the Customers? forthcoming In Library Management , pp. 304-318.