May 2010

Are Indian Libraries VIP-Friendly? Information Use and Information Seeking Behaviour of Visually Impaired People in Delhi Libraries

K.P. Singh
University of Delhi, singhkp_1972@yahoo.co.in

Easther Moirangthem
University of Delhi

Library Philosophy and Practice 2010

ISSN 1522-0222

Are Indian Libraries VIP-Friendly? Information Use and Information Seeking Behaviour of Visually Impaired People in Delhi Libraries

Dr. K.P. Singh
Senior Assistant Professor
Department of Library and Information Science
University of Delhi
Delhi, India

Ms Easther Moirangthem
M. Phil Scholar
Department of Library and Information Science
University of Delhi
Delhi, India

Introduction

The real challenge in this information age is not producing information or storing information, but getting people to use information appropriately. Information is an indispensable raw material for right decision making and key resource for the development of a nation. Effective and efficient utilization of information has contributed in a big way towards the progress and sustainable development of the society. The modern society depends on it for its growth and development, as well as for its survival. In other words, modern society is characterized by the ability to identify, interpret, produce, process, transform, disseminate, use and reuse information; to make informed choices; and to share information and knowledge through effective networking mechanisms. The ability to take part in these processes has become an even more crucial precondition to participate in social life. Being able to use, read and understand communications is not only a precondition to participate in social life; it is also a key to quality of life for the individual. Not being able to read or write at the same level as everybody else is a serious disadvantage in the knowledge society. The importance of making information accessible for visually impaired people is now realized by different sections in different countries. For example, the UK legislation, such as The Disability Discrimination Act (The Stationary office 1995) highlighted the importance of making information accessible to the visually impaired people. Service providers now have to make “reasonable adjustments” for such special people .

India is now home to the world's largest number of sight-disadvantaged people. Out of the 37 million people across the globe who are blind, over 15 million are from India. Of these, Delhi has 15.5 lakh of visually impaired people, the second highest number in the country after Uttar Pradesh with 15.6 lakh. Delhi, the National capital Territory occupies an area of 1,483 sq km and has a population of nearly 14 million, of which 15.5 lakh are visually impaired.

Delhi, the capital of India boasts of having good libraries, documentation centres, information/library networks and LIS schools. Today, it has 14 university/deemed university libraries, more then 100 college libraries, a chain of more then 296 academic, special and public libraries and 2,888 school libraries. Delhi also boast of several other libraries of historical/national significance such as the

National Science Library of NISCAIR, the National Medical Library, the National Agricultural Library of IARI, the National Archives Library, the National Documentation Centres such as the DESIDOC, NASSDOC, the Library of National Museum, the Nehru Memorial Museum and Library, the Parliament Library and the Libraries of various national council. Apart from all these important libraries, Delhi also take care of the information needs of its population of special group of visually impaired people in the form of the National Association of Blind (NAB), All India Confederation Of The Blind (AICB), Blind Relief Association (BRA), National Federation Of Blind (NFB) and other Braille and Talking book libraries which caters to the information needs of this category of special people.

Review Studies

An extensive search revealed the paucity of studies on Information seeking behavior of the visually impaired people, hereafter called the VIP and also about the information services provided to the visually impaired people. Hence, not much research is carried out on Information seeking behavior of VIP. Subsequently, less literature is available on this area. Few important studies on Information seeking behavior of VIP are undertaken and are as:

Williamson, Schauder and Bow (2000) conducted a study entitled “Information seeking by blind and sight impaired citizens: an ecological study” published in the Information research. This article reports a study, which investigated information seeking by blind, and sight impaired people, with particular emphasis on the role of Internet. The study focused very specifically on both personal lives and broader social contexts. The techniques for collecting qualitative data included two focus groups involving 16 participants and 15 individual interviewees, from both city and country settings. The findings of the study address issues of information needs, information sources, the role of the Internet in meeting needs and the barriers to the use of the Internet. It concludes that people who are blind and sight impaired deserve to be provided with a range of ways of meeting information needs, as are available for people with normal sight. Given the inexorable continuing impact of the information age, it is also concluded that ways must be found so that people with disabilities can participate equitably in the information economy.

Bell, Ruda, and Peters (2003) in their study entitled “The Librarian's quest: transforming the printed word so that all may read” published in the journal Computers in Libraries describes the work of the Mid-Illinois Talking Book Center, in developing Digital Talking Books for readers who are visually, mentally and physically impaired. The center's pilot project learned some useful things about the future shape of Digital Talking Books that DTB playback devices need to have larger, better-spaced control buttons; that users need audible clues to indicate when various function have been executed and that DTBs need to provide variable-speed playback without causing the sound to become distorted .

Beaton (2005) in a study entitled “Glasgow City Council: library, information and learning services for disabled people in Glasgow” studied an outline of the public library service offered to disabled people in Glasgow, Scotland. This paper sketches how one public library service attempts to meet the challenge of offering service to its large and diverse body of disabled users, who may need to use any part of the public library system at any time, and whose needs must be anticipated. The study describes models for service delivery to disabled users, which will of great interest to those in public library management and library practice generally.

Tucker (2007) in his study entitled “Library and resource center for visually and print impaired people in developing countries” pointed out the situation of print impaired people in various countries and proposes possible activities to meet their needs based on existing projects and experience.

Purpose and Objective

The main purpose/objective of the study is to explore the information seeking behaviour and the information services provided to the visually impaired people in Delhi as well as to explore the information needs and their information seeking behaviour . The specific objectives are:

1. To study the library services being provided by the Braille and Talking Book Libraries in Delhi;
2. To identify the information sources available in these libraries;
3. To understand the information needs and information seeking behaviour of the visually impaired people (VIP);
4. To know the information seeking strategies of the VIP;
5. To correlate the adequacy of the existing resources and services with their information needs;
6. To identify the inadequacies of facilities and difficulties they face; and
7. To suggest measures for improvement of collection and services.

Scope and Methodology of the Study

The present study is based on the 100 users (i.e., research scholar, postgraduates and graduate students) using the prominent libraries such as Amba Dalmia Resource Centre (ADRC); All India Confederation of the Blind (AICB); The Blind Relief Association (BRA); Braille Library, Delhi University's Central Reference Library (CRL); the Discipleship Centre (DC); Braille Wing, Delhi Public Library (DPL) and R.N. Batra Talking Book Library (RNBTBL), all located in Delhi.

A structured questionnaire was developed for the purpose of data collection and distributed personally to the users. (As users belong to the visually impaired people category therefore, data needed for the study was personally filled up through interacting with the users by the researchers). Thus collected data have been carefully analyzed and put into the following successive tables with their interpretations.

Findings and Discussion

Distribution of Respondents

One hundred respondents were interviewed in the selected prominent libraries of Delhi. The population consists of research scholars, graduates and post-graduate students studying in the different teaching institutions in Delhi but frequently using these libraries. The sample of the population can be viewed from the given table.

Table 1. Size and number of population

ADRC	AICB	BRA	CRL	DC	DPL	RNBTBL	Total
11	22	9	24	6	15	13	100

Out of the 100 respondents interviewed, 11% are from ADRC, 22% from AICB, 9% from BRA, 24% from CRL, 6% from DC, 17% from DPL and 16% from RNBTBL. It is shown from the table that the Braille Library of Central Reference Library of Delhi University is the most commonly used library as it is attached to the university library system.

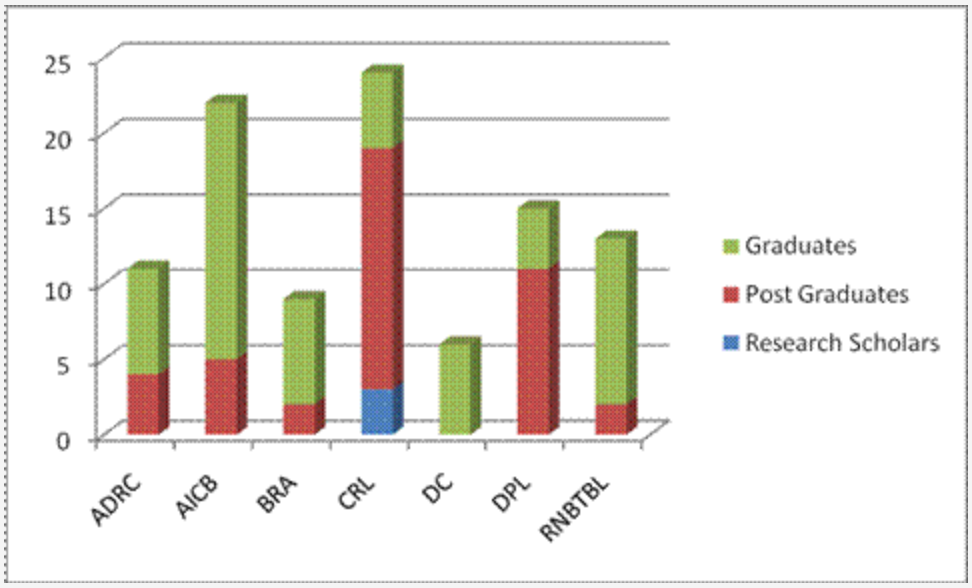
User Categories

The users interviewed were being categorized as Research Scholars, Post Graduate Students and Graduate Students as shown in the table 2. The percentage has been calculated according to the total number of respondents responded i.e., 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL , 6 in DC, 15 in DPL and 13 in RNBTBL.

Table 2. Distribution of User Category in each Library

Category of Users	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Research Scholars	-	-	-	-	-	-	3	12.5	-	-	-	-	-	-	3
Post Graduates	4	36.5	5	22.7	2	22.2	16	66.6	-	-	11	73.3	2	15.4	40
Graduates	7	63.6	17	77.3	7	31.8	5	31.8	6	100	4	15.4	11	84.6	57
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



The above tabular and graphical representation shows that there are a very few research scholars who are visually impaired. Out of the total respondents, only 3% are research scholars, 40% are post-graduates and the rest 57% are graduates. These 3% are from the Braille Library of Delhi University Central Reference Library, while there are no research scholars in rest of the libraries. The percentage of visually impaired PG students is also quite less in most of the libraries except for two. It is 73.3% in DPL, 66.6% in CRL, 36.5% in ADRC, 22.7% in AICB, 22.2% in BRA and 15.4% in RNBTBL. None of the users interviewed in DC are post graduates, all are in their graduations i.e. 100%. While the percentage of Graduates is 84.6%, 77.3%, 63.6%, 31.3%, 26.6% and 20.8% in RNBTBL, AICB, ADRC, BRA, DPL and CRL respectively.

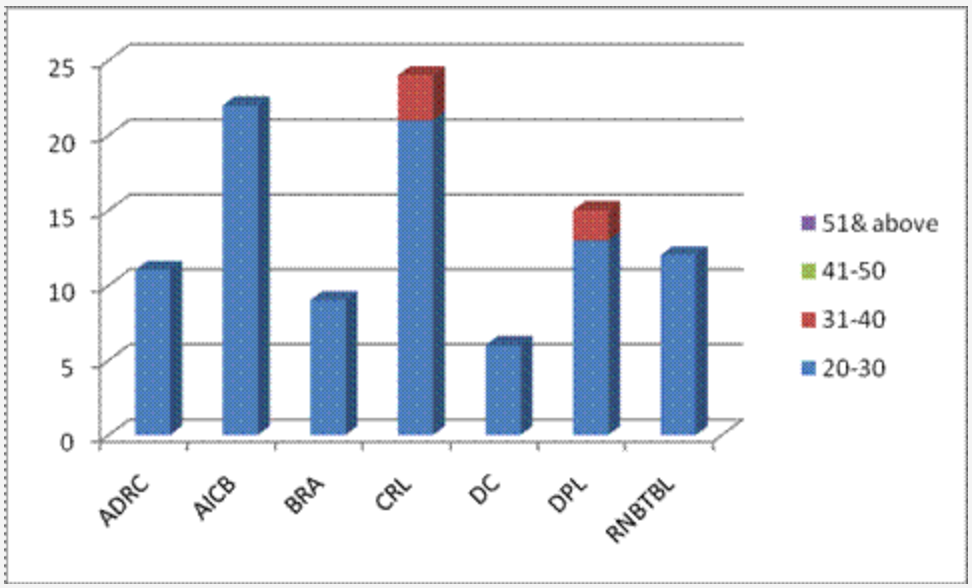
Age Distribution

The information needs and information seeking behaviour of user differs from age to age. The following table shows the age groups of the 100 respondents interviewed for the study:

Table 3. Age Distribution

Age Groups of Users	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
21-30	11	100	22	100	9	100	21	87.5	6	100	13	86.6	12	92.3	94
30-40	-	-	-	-	-	-	3	-	-	-	2	13.3	1	7.6	6
40-50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50 & Above	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



The above table and graphical representation shows that 94% of the total respondents belong to the age group of 21-30 as the respondents are mostly graduate and post-graduate students and the rest 6% belong to the age group of 31-40. Out of the total respondent in CRL, 87.5 % belong to the age group 21-30, while it is 86.6% in DPL and 92.3% in RNBTBL. And the rest 12.5%, 13.3% and 7.6% in CRL, DPL and RNBTBL respectively belong to the age group of 31-40.

Information Services

Table 4. Information Services available in the Libraries

Library Services	ADRC	AICB	BRA	CRL	DC	DPL	RNBTBL
Braille Production Press	No	Yes	Yes	No	No	Yes	No
Audio Books Recording Studio	Yes	Yes	Yes	Yes	Yes	No	Yes
Computer Training Service	Yes	Yes	Yes	Yes	Yes	No	Yes
Internet Service	Yes	Yes	Yes	Yes	Yes	No	Yes
Resource Sharing	Yes	Yes	Yes	Yes	Yes	Yes	Yes

It is observed that all the libraries except the Braille Wing of the Delhi Public Library, has an audio recording studio for recording audio books which may be in the form of audio cassettes or digital talking books. Out of the seven libraries i.e., AICB, DPL and BRA have their own Braille press which produce books or magazines in Braille. DPL deals only with Braille. Computer training is another important service provided in all the libraries to teach the VIP to be computer savvy. With computer training provided, Internet facility is another feature of these libraries with which the VIP surf the net for information and also to check e-mails. All these libraries co-operate with each other and indulge in Inter Library Loan programs and share their resources mutually.

Use and Availability of Screen Reading Software

Table 5. Used and availability of Screen Reading Software

Software Used	ADRC	AICB	BRA	CRL	DC	DPL	RNBTBL
JAWS for Windows	Yes	Yes	Yes	Yes	Yes	No	Yes
SAFA	Yes	No	No	No	No	No	Yes

The ICT and its off shoots technology brings smile on the faces of the VIP too. The ICT gadgets nowadays are the true companion of this category of users. It is discover that the JAWS for Windows (for English) developed by Freedom Scientific is the most widely used screen reading software and is used in the libraries providing library services to the Visually Impaired People in Delhi. Two out of the seven libraries also use SAFA (both English and Hindi) developed by the National Association of the Blind (NAB) in addition to JAWS for Windows for reading the documents.

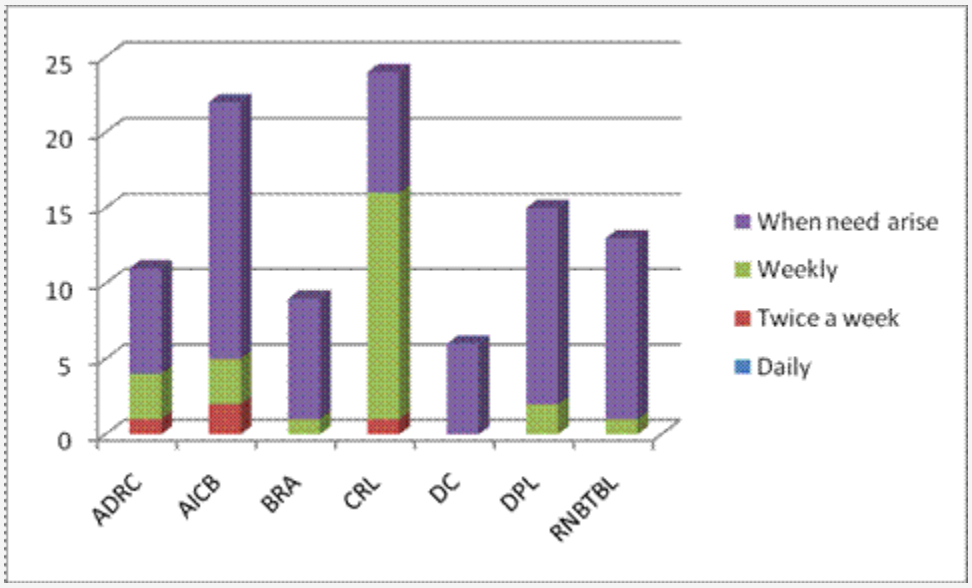
Frequency of Library Visits

The users visit the library to fulfill their information needs. The frequency of visiting the library differs from user to user disciplines upon their needs and user category. An attempt has been made to compare the frequency of library visits by each user category in the selected libraries as shown below in the Table.

Table 6. Frequency of Library Visit

Visit	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Daily	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Twice a week	1	9.1	2	9.1	-	-	1	4.2	-	-	-	-	-	-	4
Weekly	3	27.3	3	13.6	1	11.1	15	62.5	-	-	2	13.3	1	7.7	25
When need arise	7	63.6	17	77.3	8	88.8	8	33.3	6	100	13	54.2	12	92.3	71
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



From the above table and graphical representation, it is viewed that most of the VIP use library only when a need arises with 71% of the total respondents visiting library only when the need arise while 25% visit the library on a weekly basis. A mere 4% visit the library twice a week which is quite surprisingly a good number with the mobility problem. The number of respondents visiting the library when need arise is the highest in DC with 100%. It is 92.3% in RNBTBL, 88.8% in BRA, 77.3% in AICB, 63.6% in ADRC, 54.2% in DPL and 33.3% in CRL. Of the total users 62.5%, 27.3%, 13.6%, 13.3%, 11.1%, and 7.7% in CRL, ADRC, AICB, DPL, BRA and RNBTBL respectively visit the library weekly. The study reveals that 9.1% of the total users visit the library twice a week in both ADRC and AICB, and a mere 4.2% in CRL.

Availability of Information Resources in the Library

The information sources available in each library are more or less the same except for its collection. The sources as available in each of the selected library are shown in the Table 7

Table 7. Availability of Information Resources in the Library

Sources	ADRC	AICB	BRA	CRL	DC	DPL	RNBTBL
Braille	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audio Books (Cassettes)	Yes	Yes	Yes	Yes	No	No	Yes
DAISY Books	Yes	No	Yes	Yes	Yes	No	Yes
Electronic Text	Yes	No	No	Yes	No	No	Yes
Internet	Yes	Yes	No	Yes	No	No	Yes

The above table reveals the various information sources available for the VIPs in all the selected libraries. Braille, Audio Books in the form of audio cassettes and DAISY (Digital Accessible Information System) books are the most common sources available in all the libraries. Electronic text is another upcoming source while Internet is also becoming quite popular among the computer literate VIPs because of the availability of the software support technology such as screen readers like JAWS (Job Access With Speech) and SAFA (Screen Reading Software for Reading Hindi).

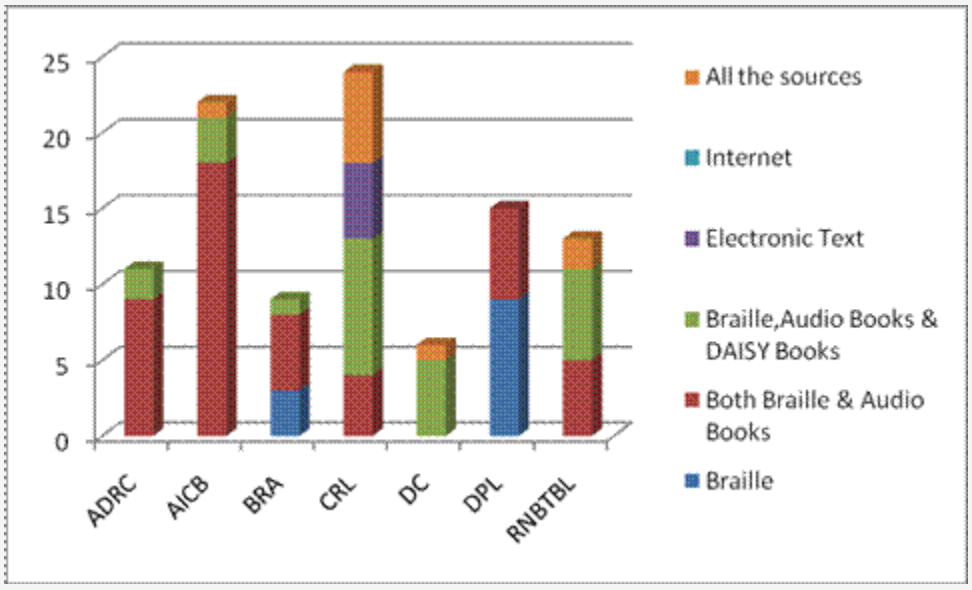
Mostly Commonly Used Information Sources in each Library

According to their convenience and availability of the information source, the use of information sources differs from user to user. Table 5 shows the information sources most commonly used by the VIPs in the selected libraries.

Table 8. Mostly Commonly Used Information Sources in each Library

Sources	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Braille	-	-	-	-	3	33.3	-	-	-	-	9	60	-	-	12
Both Braille & Audio Books (Cassettes)	9	81.8	18	81.8	5	55.5	4	16.6	-	-	6	40	5	38.4	47
Braille, Audio Books & DAISY Books	2	18.2	3	13.6	1	11.1	9	37.5	5	-	-	-	6	46.2	26
Electronic Text	-	-	-	-	-	-	5	20.8	-	-	-	-	-	-	5
Internet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
All the sources	-	-	1	4.5	-	-	6	25	1	100	-	-	2	15.4	10
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



The table reveals that 47% of the total respondent uses both Braille and Audio books in the form of audio cassettes more than any other resources and out of the rest, 26% use the three resources namely Braille, Audio Books and DAISY Books, 12% using only Braille and another mere 5% also uses Electronic Texts as well. Out of the total respondents, 10% uses all the mentioned sources of information. In this study, out of the seven libraries, ADRC and AICB have the highest number of respondents using both Braille and Audio books with 81.1% in each library. While the percentage is 55.5% in BRA, 40% in DPL, 38.4% in RNBTBL, and 16.6% in CRL respectively. Quite a good number of users also use the three main sources, namely Braille, Audio Books in the form of audio tapes and DAISY Books. The highest rate is in DC with 83.3%, RNBTBL with 46.2%, 37.5% in CRL, 18.2% in ADRC, 13.6% in AICB

and 11.1% in BRA. Very few users use Braille as the main source of information now due to the availability of Talking books. However 60% of the users interviewed in DPL and 33.3% in BRA mostly use Braille as the main source of information apart from other sources. These two libraries have good collection of Braille with Braille as their main source of information in different forms- textbooks, journals, fictions and non-fictions. With the recent development of ICT, electronic text has also become one good source of information for the VIP. However, out of the six libraries, only RNBTBL and CRL provide this facility wholesomely. The provision of electronic text at ADRC is only at its beginning and much is needed to be done to improve this service. The rate is 20.8% in CRL. Another evidence of the recent trend in ICT in the domain of the VIP is the use of Internet early stage. Although some of them use Internet especially for e-mails, none of them use Internet as the main source of information. Fewer visually impaired users use all the four sources with 25% in CRL, 16.6% in DC and 15.4% in RNBTBL and another meager number of 4.5% in AICB.

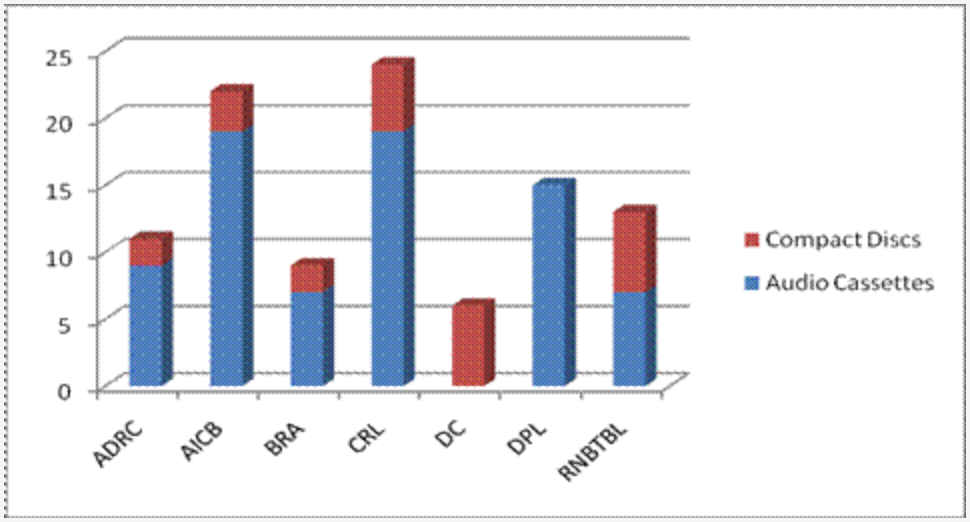
Most Preferred Form of Audio Books

Table 6 has shown that Audio Books are commonly used besides Braille resources. However, the forms of Audio Books being used again differ from user to user according to their convenience and affordability. Most preferred form of Audio Books among the VIP can be viewed from the status of the given table.

Table 9. Most Preferred Form of Audio Books

Form	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Audio Cassettes	9	81.8	19	86.3	7	77.7	19	79.2	-	-	15	100	7	53.8	76
Compact Discs	2	27.3	3	13.6	2	22.2	5	20.8	6	100	-	-	6	46.2	24
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



The above table reveals that the respondents mostly use Audio books in the form of Cassettes more than the digital DAISY Talking books which are in the form of compact discs. This is because almost all of them own tape record player which is cheaper and easier to use than a CD or a DAISY player. Of the talking books, 76% of the total respondents preferred Audio cassettes more than the DAISY Books

(24%). Out of the selected seven libraries, only the Discipleship Center has the highest number of digital talking book users with 100% as most of them own a CD player or a computer. The percentage of VIP using audio books in the form of cassettes is 100% in DPL, 86.3% in AICB, 81.8% in ADRC, 79.2% in CRL, 77.7% in BRA and 53.8% in RNBTBL. Since the libraries indulge in resource sharing, the users loan the resources which are not available in their particular library from other libraries.

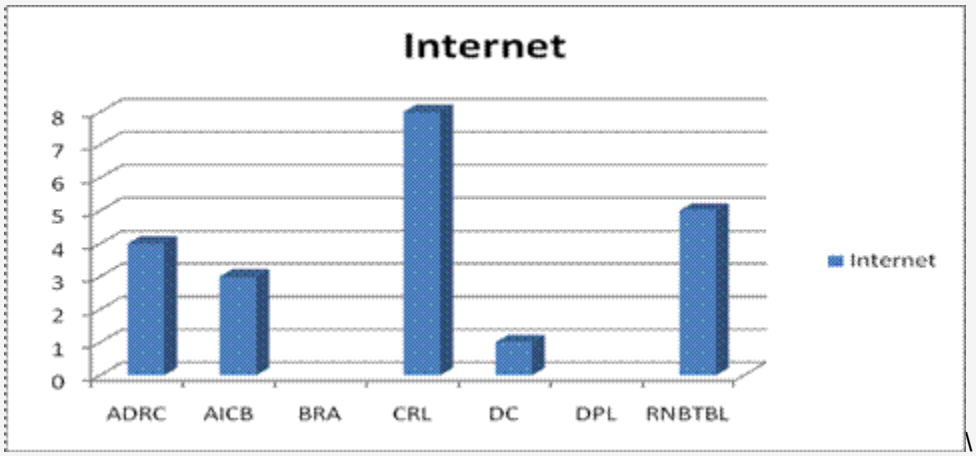
Use of WWW and Internet Service

The Information Communication Technology is the necessity in all walks of life. Similarly, the VIP is also not left behind in this context. With the use of screen readers, a visually impaired person can also operate a computer like any normal person. As a result, use of WWW and Internet service is not uncommon among the visually impaired users. The status of the use of the WWW and Internet service by the respondents can be viewed from the table.

Table 10. Use of WWW and Internet Service

Source	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Internet	4	36.4	3	13.6	-	-	8	33.3	1	16.6	-	-	5	38.5	21
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



It is revealed from the above data that WWW and Internet service is also emerging as an important resource of information among the VIP. Although the number of VIP using WWW and Internet service is less (only 21%), it is quite popular among the visually impaired users who are computer literate. Out of the seven libraries, five provides Internet facility to the users. In response to its use, it is found that RNBTBL has the highest number of users using WWW and Internet service with 38.5% as most of the users are given computer training. The rate is 36.4% in ADRC, 33.3% in CRL, 16.6% in DC and 13.6% in AICB.

Library Visit

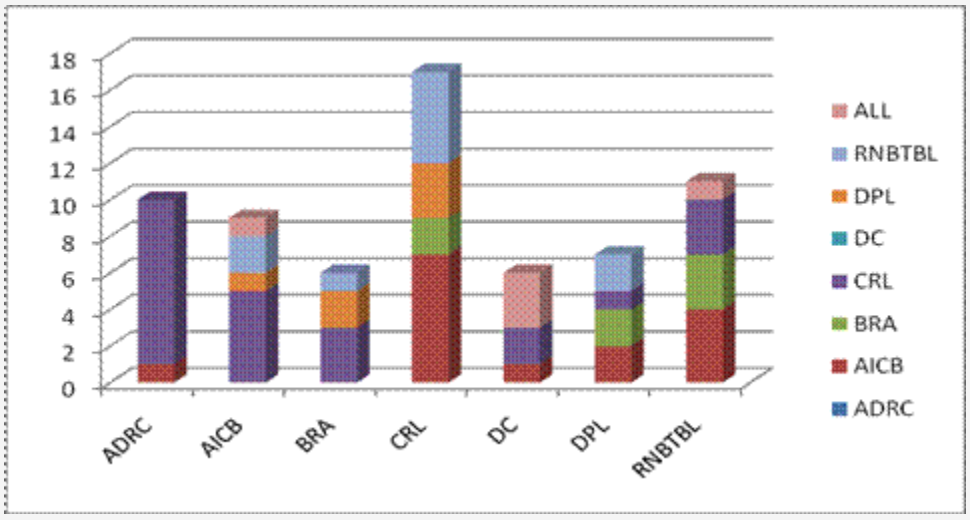
Mobility training is another important service provided to the visually impaired in some of the Institutes for the Blind to help them to be independent in moving around. As a result, most of the visually

impaired people are independent enough to travel and visit other libraries as well in their other efforts to seek information. Table 11 shows the percentage of users that visit other libraries.

Table 11. Visit of other Libraries

Name of the Library	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
ADRC	Nil		Nil		Nil		Nil		Nil		Nil		Nil		
AICB	1	10	Nil		Nil		7	41.2	1	16.6	2	28.5	4	36.4	15
BRA	Nil		Nil		Nil		2	11.7	Nil		2	28.5	3	27.3	7
CRL	9	90	5	55.5	3	50	Nil		2	33.3	1	14.2	3	27.3	23
DC	Nil		Nil		Nil		Nil		Nil		Nil		Nil		
DPL	Nil		1	11.1	2	33.3	3	17.6	Nil		Nil		Nil		6
RNBTBL	Nil		2	27.2	1	16.6	5	29.4	Nil		2	28.5	Nil		10
All the above libraries	Nil		1	11.1	Nil		Nil		3	50	Nil		1	9.1	5
Total	10		09		06		17		06		07		11		66

The percentage is calculated on the basis of the total number of respondent that visit other library apart from the mother library i.e. 10 in ADRC, 9 in AICB, 6 in BRA, 17 in CRL, 6 in DC, 7 in DPL and 11 in RNBTBL.



The study reveals that visits to libraries other than the host library among the visually impaired users are not uncommon despite their disability. Of the seven libraries, the Braille library of the CRL is the most visited library with 23% of the total respondent visiting it while it is 15% in AICB, 10% in RNBTBL, 7% in BRA, and 6% in DPL. Another 5% of the total respondents visit all the libraries mentioned other than their own. Out of the seven libraries, DC has the highest percentage of users visiting other libraries. Out of the 100%, 50% visits all the libraries mentioned and out of the other 50%, 33.3% visits CRL and the other 16.6% visits AICB. The next is ADRC with 90.9% out of which 90% visits CRL and 10% visits CRL. 84.6% of the users in RNBTBL visit other libraries out of which 36.4% visit AICB, 27.3% visit BRA and CRL and 9.1% of it visit all the libraries. In CRL, out of the 70.8% users visiting other libraries, 41.2% visit AICB, 29.4% visit RNBTBL, 17.6% visit DPL and 11.7% visit BRA. Out of the 66.6% users in BRA, 50% visit CRL, 33.3% visit DPL and another 16.6% visit RNBTBL. 46.6% of the total users in DPL visit other libraries out of which 28.5% visit AICB, BRA and RNBTBL and a mere 14.2% in CRL. In AICB,

40.9% make use of other libraries out of which 55.5% visit CRL, 27.2% visit RNBTBL and another 11.1% use DPL and all the libraries mentioned.

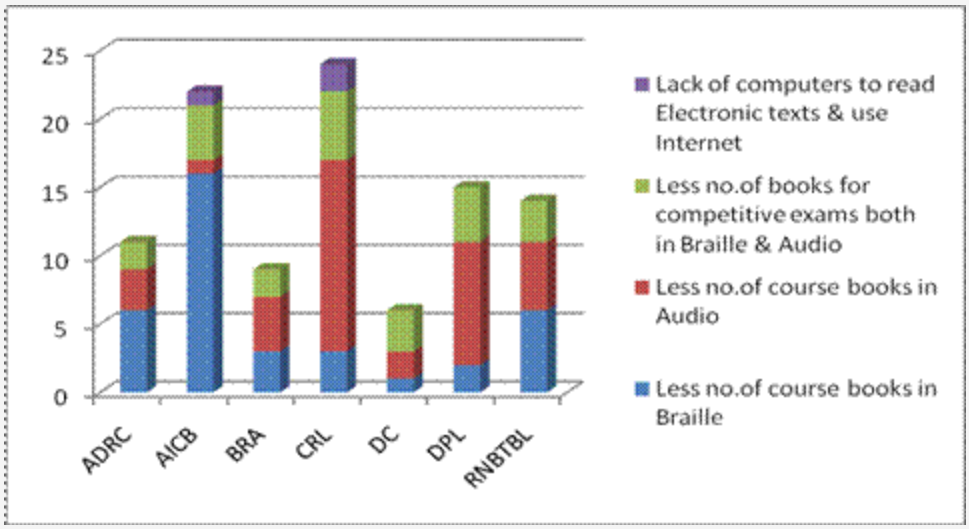
Information-Seeking Problems of Visually-Impaired People

Apart from the disability which has already separated them from all normal activities of life, the visually impaired people also face difficulties and problems while seeking information due to several reasons such as lack of awareness among both the laymen and intellectuals equally to understand their information needs. It is also due to, lack of funds and financial assistance for the development of Braille and Talking Book Libraries and Resource Centers and improving their services, resources are also lacking, etc. Table 12 shows the difficulties and problems as faced and encountered by the VIP during this study while seeking information.

Table 12. Information-Seeking Problems of Visually-Impaired People

Nature of Problems/ Difficulties	ADRC	%	AICB	%	BRA	%	CRL	%	DC	%	DPL	%	RNBTBL	%	Total
Less number of course books in Braille	6	54.5	16	72.7	3	33.3	3	13.5	1	16.6	2	13.3	5	38.4	36
Less number of course books in Audio	3	27.3	1	4.5	4	44.4	14	58.3	2	33.3	9	60	5	38.4	38
Less number of books for competitive exams in Braille or Audio	2	18.2	4	18.2	2	22.2	5	20.8	3	50	4	26.6	3	23.1	23
Lack of computers to read Electronic texts and use Internet resources.	-	-	1	4.5	-	-	2	8.3	-	-	-	-	-		3
Total	11		22		9		24		6		15		13		100

The percentage is calculated on the basis of the total respondent in each library i.e. 11 in ADRC, 22 in AICB, 9 in BRA, 24 in CRL, 6 in DC, 15 in DPL and 13 in RNBTBL.



From the above tabular and graphical presentation, it is found that the sources of information are very much limited for the visually impaired users in all the selected libraries in both Braille and Audio. The difficulty faced due to the lack of information source depends on the sources available in the library. 38% of the total respondents feel the inadequacy of Audio Books; another 36% feels the same in case of Braille materials while 23% feels the need for competitive books in accessible form whether in Braille or Audio Books. 3% of the total respondents consider the lack of sufficient number of computers a hurdle in the way to read e-texts and use Internet. About 72.7% of the users in AICB face difficulty due to the scarcity of course books in Braille as audio books are the main source of information available, while it is 54.5% in ADRC, 46.2% in RNBTBL, 33.3% in BRA, 16.6% in DC, 13.3% in DPL and 12.5% in CRL. The difficulty faced in the case of audio books is the highest in DPL with 60%. It is 58.3% in CRL, 44.4% in BRA, 38.4% in RNBTBL, 33.3% in DC, 27.3% in ARDC and 4.5% in AICB. Lack of resources for competitive exams and general reading in the accessible form is a common problem faced by print-disabled people. The visually impaired users in DC are most concerned about the lack of competitive books in both Braille and Audio with 50% of the users facing this problem. The rest being 26.6% in DPL, 23.1% in RNBTBL, 22.2% in BRA, 20.8% in CRL, 18.2% in both ADRC and AICB. Lack of computers is another problem faced by the users in some libraries. The problem is found to be common in AICB and CRL where computer-based sources like DAISY Books, e-texts and Internet facility are available. 8.3% of the users in CRL and 4.5% in AICB feel the lack of computers is a hindrance in spite of having computer knowledge. There is no such problem in RNBTBL and DC. In BRA and DPL, the users are not even aware of such difficulties as they do not have this facility. The users in ADRC do not really use computers for reading.

Conclusion

Through this study, researchers try to explore present scenario of library services being provided to the visually impaired people and also discusses their information needs and information seeking behavior. Apart from these libraries, there are few departmental libraries attached to colleges, departments of the Delhi University which provides library services to their visually impaired students. The services being provided by these libraries are more or less the same according to the infrastructure, collection development, financial and human resources.

For a visually impaired person, library service is a critical channel and often the only source of reading material. While a sighted person has not only the public library but the local book store, newsstands and book clubs to supply with reading materials, a blind person cannot expect to get recorded or brailled literature from these sources. Thus library plays a great role in fulfilling the information and educational needs of the visually impaired people. Therefore efforts need to be done for

improving the library and information services. Attention has been drawn to the still very insufficient library services available so that steps can be taken up to improve and develop new services to fill up the lacunae in providing information services to the visually impaired people. Therefore, serious efforts need to be done by the libraries/institutions/NGOs for these neglected groups of special people in fulfilling their information needs. However, through this small study, an attempt is made to touch the lives of the visually impaired people and their information needs and bring awareness to the LIS professionals and others.

Hence, it is suggested that more and more studies on this areas should be undertaken by the LIS professionals so that libraries could develop need-based collections/services to this category of users.

References

Beaton, Marion (2005), "Glasgow City Council: library, information and learning services for disabled people in Glasgow", *Library Review,* Vol.54 No.8, pp. 472-478.

Bell *et al*., (2003), "The Librarian's quest: transforming the printed word so that all may read" *Computers in Libraries,* Vol.23 No.10, pp. 14-19.

Beverley *et al.* , (2007), "Can two established information models explain the information behavior of visually impaired people seeking health and social care information?" *Journal of Documentation,* Vol. 63 No.1, pp. 9-32

Singh, K.P. and Satija, M.P. (2008), "Information seeking strategies of agriculture scientists working in the ICAR institutions in India", *DESIDOC Journal of Library & Information Technology,* Vol. 28 No.3, pp. 37-45.

Tucker, Richard N. (2007), "Library and resource center for visually and print impaired people in developing countries", *Library Trend,* Vol.55 No.4, pp. 847-863

Williamson *et al* ., (2000), "Information seeking by blind and sight impaired citizens: an ecological study", *Information research,* Vol.5 No.4, available at: http://informationr.net/ir/5-4/paper79.html/ (accessed on January 5, 2008).

http://www.mapsofindia.com/delhi/population-of-new-delhi.html