

Designing Barrier Free Services for Visually Challenged Persons in the Academic Libraries in India

Protap Chandra Roy

Central Library, University of Calcutta,
Kolkata, India
pra_tap61@hotmail.com

Ratna Bandyopadhyay

Professor, Department of Library and Information Science
University of Calcutta, Kolkata, India

Abstract

This paper aims to design barrier free environment in university libraries by procuring proper equipments, technologies and providing proper infrastructural facilities and need based services for the visually disabled. Till now academic library services for these persons are not adequate. Recently some university libraries have taken steps in this regard. As per our survey Bharathihar University, Jammu University, Delhi University, Punjab University, JNU, Lucknow University, Calcutta University either established or going to establish Digital Braille and audio library. At present with the help of Information Technology (IT) it is possible to provide user friendly & adequate services for these people who are neglected for long time. UNESCO & IFLA have issued guidelines to provide equal library services to all including people with disabilities. Governments of India and University Grants Commission have also issued guidelines in this regard. This paper highlights the special equipments and services that the librarians of academic libraries are expected to provide fulfilling the purpose and missions of libraries framed & supported by IFLA and UNESCO.

Keywords: Barrier free service, Braille Library, Adaptive technology, Enabling technology, Visually challenged, Visual impaired, Differently disabled, University library.

Introduction

The term 'barrier-free' indicates an environment where all users irrespective of their physical disadvantages can enter, use or access the resources as and when they want. In the library environment, library building, its furniture, learning resources should be easily accessible by all. The term access ensures physical access, as well as providing aids and appliances to access resources and services. To provide access to all, policies, strategies are to be developed. It is needed to sensitize people, develop attitudes. The total activities and services also need to be monitored.

To become responsive to information needs of all users library building, its departments, other areas and

facilities (like washrooms, drinking water areas, staircases) should be well planned following the standard guidelines. Resources, and services should be organized properly so that all users including the persons with disabilities can access easily. Accessibility is to be provided as matter of right. UN Convention on Rights of Persons with Disabilities, 2006 has mentioned that "... approximately 10 per cent of the world's population are persons with disabilities... Approximately per cent of whom live in developing countries... Persons with disabilities continued being denied their human rights and were kept on the margins of society in all parts of the world..."⁹ The Convention was organized to set the legal obligations and protect the rights of the persons with disabilities. The Convention has recommended 'no-gap policy' and 'mainstreaming disabilities in existing processes.' This Convention has also defined persons with disabilities as those 'who have long term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.'⁹

Persons with Disabilities (Equal opportunities, Protection of Rights and Full Participation) Act 1995 (PWD Act) in India is giving stress on equal rights for all.⁴ Integrated Education for Disabled Children has also been introduced. There are mandates in Constitution to provide education to all. The National Policy of Education, 1986; Unnikrishnan Judgement, 1993, Education Ministers' resolve, 1998, Right to Education Bill 2005, Right to Information Act 2005 are all asking for fulfilling the citizens' right to education and information. Library is part and parcel of education system.

According to Census 2001, the total population of India is 1,028,610,328. The total disabled population is 21,906,769, i.e. 2.1 per cent. Out of this visually disabled population is 10,634,881 i.e. 1.0% and

movement disabled population is 6,105,477, i.e. 0.6 per cent.³

Government of India in a meeting on 13 June 2008 has recommended "All educational institutions should be made barrier free within a reasonable time frame of, say, two years for universities and three years for colleges and schools. They should also have facilities to provide Braille books and talking books. Sign language interpreter should also be provided in institutions having hearing impaired students."⁸

"Most Central universities and, at least one State University in each state should have a Department of Disability Studies, which should address all issues relating to persons with disabilities – specially human rights, rehabilitation, education, etc."⁸

University Grant Commission (UGC) in its circular (NO.F.6-1(CCP II) dated 9 January 2009) has mentioned:⁸

- To extend facilities of cassette recorders for Blind students in Universities
- To provide facilities to persons with disabilities
- To strictly follow the directions mentioned in PWD Act.
- To introduce the Department of Disability Studies
- To take steps to make the institutions barrier free.

UGC in its XI Plan guidelines has also mentioned - make the building disabled friendly and also a 'barrier free access for persons with disabilities.' The environment should be barrier free for wheel chairs as well as for other mobility devices.

Academic Library System in India

Libraries are the integral part of academic institutions. School Library (secondary and higher secondary level), College Library, University library are all parts of academic library system. In our paper we are concentrating on the barrier free services for visually disabled users of the university libraries in India.

Situation in Some University Libraries in India

Academic library services for the visually disabled persons are not adequate. According to our web based survey, only some Indian universities have taken initiative to establish specialised library services for visually impaired users. Some of these universities are:

Bharathihar University, Tamil Nadu. It has introduced a 'Talking Book Library'. Rotary Club has provided help to form the library. The library has started functioning with 1000 books in the form of CDs and audio cassettes.¹

Jammu University has opened a Resource Cell for the visually disabled users. A separate software JAWS

(Job Access with Speech) has been installed to convert hard copy to voice.¹⁰ **Delhi University**² extended its existing Braille Library for multi-purpose use. The Braille Library is established in the Central Reference Library. The new activities initiated in this centre are mainly, Braille production, talking book production and electronic text preparation. Over 400 visually challenged students are benefited by these new initiatives. Computer equipped with special software can translate textbooks in regional languages in Braille format. The modern equipment like Braille printer, audio cassettes containing reading and reference material are also available. Facilities like conversion of soft text to voice are also available.

Punjab University¹⁴ has established a special section in the library for visually impaired users where facilities for listening to the contents of books are available by using some special software. University has also decided to provide free accommodation in the hostel with free education for visually challenged students.

Jawaharlal Nehru University (JNU)¹¹ has also established a separate section called Helen Keller Unit for visually challenged students. The Unit has twenty computers with special software like Kurzweil and JAWS etc. These are two screen reading software which allow users to hear text, as it appears on screen. University has also installed an advanced printer which inputs English books and print it in Braille format.

Lucknow University¹³ has established an exclusive library (called Dr. Manohar Lohia Library) for visually disabled students. Initially the capacity of this library is fifty seats for visually impaired. Machines are equipped with conversion software. Fifteen rooms are allotted for visually impaired students in Narendra Dev Hostel which is situated in front of the library for their convenience.

University of Calcutta with the collaboration National Association of the Blind (NAB) is going to open a state-of-art 'Digital Braille Library and Audio Recoding Workstation', in the 2nd floor of the Central Library, College Street, where all modern learning equipments for visually disabled persons will be available.

Designing the Library for Visually Challenged

a) Infrastructural facilities: Appropriate signage should be there on both inside and outside of the library building. Entrance should be well lighted for the persons of low vision. Good lighting is essential in the floor with an even level of illumination without shadows. Audio signals near the entrance are also required to indicate various parts of the library building. Ramps are needed for these users. Ramps should be provided especially where there are changes in elevation on walkways, corridors or parking place. Handrails are to be provided on both sides of walkways,

ramps and staircases. Handrail helps maintain balance and can prevent serious falls. Continuous handrail helps them to understand the changes in the direction. Path for walks should not be interrupted by steps. Path surface should be obstacle-free and on a slip-resistant continuous plane. If the building is more than one storey, elevator facilities should be provided. The elevator should have different audio signals to indicate up and down direction. Building will be equipped with fire alarms. There should also be an open space where the disabled users can take shelter before evacuation in case of any alarm.

There are number of standards like IS 4963 developed by Bureau of Indian Standards for developing Building facilities for the Physically Handicapped, National Building code (1970 rev. in 2005), Guidelines and Space Standards for Barrier free Built Environment development developed by Central Public Works Department in 1998. UGC in its XI Plan has also mentioned 'that building projects should conform to the norms laid down by the PWD, or CPWD... to enable the use of the building for the differently abled (physically challenged) persons'.⁷

- b) **Talking Zone:** There should be a talking zone where formal reader service can be provided. Trained library professionals can read out the relevant information to the visually disabled users whenever needed. Here these special users can also use different audio media to access the resources.
- c) **Trained Librarian:** Library professionals should be specially trained to provide proper services to the visually disabled. They have a big role to know about different grades of visual disability & to develop skills that will enable them to deliver library services to this special group. Awareness/training programmes are to be organized for the stakeholders engaged in task of providing access.
- d) **Alternative formats of Resources:** Most commonly used alternative format to standard print are enlarged print, embossed print and spoken word. Large print is required for people with low vision. Embossed print is the material in Braille format and used by the person habituated with Braille reading. Spoken word indicates the form of audio tape which includes talking books, newspapers and periodicals on tape.
- e) **Modern Adaptive Technologies and Devices:** Modern computer technology helps in modifying existing software/hardware as well as developing new software/hardware to enable people with disabilities to work independently. This is often called adaptive or enabling technology. The reduction in price of these technology devices is offering a great opportunity for all libraries to satisfy

the needs of the visually disabled persons without involving much expenditure. Some of these essential equipments are:

Braille input device - It is a key board which include eight keys for entering dot information which form a Braille character.

Braille output device - It is the computer terminal for displaying Braille character which raises dots through holes in a flat surface.

Braille printer – This embosses Braille characters line by line.

Braille translation software – It is used to convert text to Braille format using computer and Braille embosser.

Optical Character Reader (OCR) – It is a system to transform the hard text to image text and it also converts image text to machine readable text. This system consists of scanner, computer and related software.

Speech synthesizer - This system converts computer readable text language to voice speech (artificial human speech). Softwares which convert hard copy to voice should be installed.

Four-track Cassette recorder – It records any voice and plays any recorded voice collected in cassette.

Large print printer – It can produce large print of any size.

Screen magnifying software – It is used to enlarge the text on computer screen.

CCTV (Closed Circuit Television) – It is a television with video camera. It can be used by the person with low vision to magnify any printed document.

Websites of universities should also be organised with modern ICT so that it can be accessed by visually disabled users.

- f) **Reader Service:** Besides being equipped with different types of adaptive technology, academic libraries should establish a formal reader service section to increase the accessibility of their library. As all documents are not available in their technology savvy form like Braille or talking book and some documents are rarely needed by these users. At this point Reader Service is the only way to provide 'right information to the right user at the right moment'.

Steps to be followed

- The building as well as other infrastructural facilities can be developed by following the standard guidelines and practices. Non-compliance of these standards should ensure

punitive steps. Academic libraries can modify their existing buildings to accommodate these special users.

- Services should be introduced /developed according to the needs of the library users
- National and local co-ordination is needed to overcome the gaps. It is also essential to identify the organizations which are providing similar services. Co-operation of all will result in cost cutting and betterment of services.
- Aids/equipments/materials and other technology are to be procured for improvement of services
- Acquisition of equipments is not enough. Training/ workshop are to be organised for its operation, for using reading aids to access audio, print and electronic materials
- Awareness programmes on regular basis is required.
- In-service training is needed for library professionals
- Promotion/marketing of services is also needed.
- Services/facilities are to be monitored
- Representatives from the users should be there in the managerial decision making committees

Conclusion

National Knowledge Commission (NKC) has also asked 'to identify constraints, problems and challenges... to recommend changes and reforms... to take necessary steps to mobilize and upgrade the existing library and information systems and services... and thus to ensure a holistic development of information services'.⁶

University library can provide the leadership, show their expertise, initiate new innovative means, develop and provide specialized services to these special groups who do not have access to the normal services. It is the democratic right, constitutional right of these differently abled users. University libraries can ensure their access to information and can thus bridge the gap between information rich and information

disadvantaged. IFLA / UNESCO guidelines have mentioned "Access for all", "freedom of access to information"; (IFLA – UNESCO Internet manifesto guidelines). By designing barrier free environment, setting up new facilities, reorienting library professional university library can ensure information for all.

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