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June 2017

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LIBRARY AND INFORMATION SERVICES TO THE VISUALLY IMPAIRED PERSONS

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ABSTRACT

Visually impaired people have the same information needs as sighted people. Just as sighted people might read a newspaper, listen to a CD or download electronic information from the Internet; visually impaired people also want access to relevant information in their chosen accessible format. Developing an efficient library service for print-disabled people is extremely important, because there are significantly fewer books available commercially in accessible formats compared to what is published in print for the general public. Libraries have a moral obligation to make information available to all categories of users regardless of their gender, age, race, political affiliation or disability. Till now library services for these persons were not adequate but the importance of making information accessible for visually impaired people is now realized by different sections. 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. IFLA have issued guidelines for development of library services to visually impaired. Governments of India and University Grants Commission have also issued guidelines in this regard. This paper describes the barriers faced by visually impaired, their information needs, highlights the special equipments and services that the libraries are expected to provide and provide suggestive guidelines for improving the library and information services to visually impaired.

KEYWORDS- Visually impaired, Blind, Library services, Assistive technology, guidelines

INTRODUCTION

Libraries play a fundamental role in society. The resources and services they offer create opportunities for learning, support literacy and education, and help shape the new ideas and perspectives that are central to a creative and innovative society. Libraries represent different things to different people – from a place where mothers can take toddlers to read their first stories and students can study, to a service allowing anyone to borrow a book, access the Internet or do research. Quite simply, libraries offer a means by which we can gain access to knowledge. (Ben White, 2012). Information is essential to all human beings and every library's aim is to provide the right information at the right time and in the right format to its patrons regardless of

race, religion, age, sex, nationality and language. This core function includes the provision of information to people with disabilities. International Federation of Library Associations and Institutions (IFLA) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) in the Public Library Manifesto (1994) emphasize that; every library must provide proper services for those who do not have easy access to them, such as the mentally and physically disabled, the ill and the imprisoned.

“Disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. An *impairment* is a problem in body function or structure; an *activity limitation* is a difficulty encountered by an individual in executing a task or action; while a *participation restriction* is a problem experienced by an individual in involvement in life situations.” (World Health Organization). More than 1 billion persons in the world have some form of disability. This corresponds to about 15% of the world's population. ‘Visually impaired’ is a general term used to describe people who are partially-sighted or completely blind. There are about 314 million visually impaired people globally with 45 million totally blind. India is home of 26,810,557 (26.8 millions) disabled persons which constitutes 2.21% of total population of the country. 5 million persons are visually impaired (disability in seeing) sharing 18.8% of total disabled persons in the country. (Census of India, 2011)

BARRIERS FOR VISUALLY IMPAIRED PERSONS

All over the world people with visual impairments has to face numerous difficulties as they seek to assert their position in a modern, complex and competitive world dominated by able-bodied individuals. People with disabilities are often excluded from social activities and are not treated in the same way as their able-bodied equals. The fact is that, in one way or another, their physical state means that they live a life that is perceived to be different from that of able-bodied people (Ochoggia 2003). Mandesi (2007) adds that people with disabilities face numerous challenges to access opportunities equal to those enjoyed by their peers in day-to-day life. Environmental, physical, legal and institutional barriers are found throughout society, and negative attitudes to persons with disabilities often cause social exclusion and are the hardest to overcome. Mandesi further insists that, for people with disabilities to be treated equally, physical barriers to accessing resources need to be removed and attitudes to be changed.

THE NATIONAL CONCERN

Government of India, Ministry of Human Resource Development, Department of Education (2005) in its ‘Action Plan for Inclusive Education of Children and Youth with Disabilities’ has mentioned its goal as “Recognizing Education for All children as a fundamental right, to ensure the inclusion of children and youth with disabilities in all available mainstream educational settings, by providing them with learning environment that is available, accessible, affordable and appropriate to help develop their learning and abilities.”

Developed countries like USA, Canada, UK and many European nations have started their initiatives to facilitate the persons with disabilities (PWD) much before. Most of the universities and institutes in these countries are providing access to information to the disabled persons by way of enacting the law, by formulating the national policies and funding the libraries and information centres. They have state-of-the-art technologies to assist in the information access.

All such institutes' have disabled person friendly infrastructure, information communication tools, facilities and services, trained man-power. The government departments, institutes, libraries, corporate houses, foundations and NGOs have disability friendly websites and portals.

India is not left far behind in empowering its disabled citizenry. It has provided all possible support to the persons with disabilities either by enacting a special Act, or by executing a 'National Policy for Persons with Disabilities', or by way of providing reservations in education, employment, government schemes and programmes or establishing institutes and organizations and many more. In addition to the legal framework, extensive infrastructure has been developed including the 'National Institute of Visually Handicapped, Dehradun'. The Government of India has enacted three legislations for persons with disabilities viz.

- (i) Persons with Disability (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, which provides for education, employment, creation of barrier free environment, social security, etc.
- (ii) National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act, 1999 has provisions for legal guardianship of the four categories and creation of enabling environment for as much independent living as possible.
- (iii) Rehabilitation Council of India Act, 1992 deals with the development of manpower for providing rehabilitation services (MSJE 2009).

Moreover in the higher education sector, the University Grants Commission (UGC) is supporting universities and colleges in the country to involve in special education activities to empower differently-abled persons. The UGC had started the scheme of assistance to universities/colleges for Higher Education for Persons with Special Needs (Differently-abled Persons) (HEPSN).

INFORMATION NEEDS OF BLIND AND VISUALLY IMPAIRED PEOPLE

Not much is known about the information seeking behavior of blind people; the information needs of blind people have been studied by Williamson, Schauder, and Bow (2000). Most of the needs were similar to other people's needs, with some exceptions. The participants of the study sought information related to their visual disabilities, and how to get around in normal life situations. Other needs were health, income and finance, recreation (including listening to talking books), government, consumer, travel, and employment information. In terms of how the participants got their needs met, much depended on whether the person lived alone or with someone else such as a spouse, family member, and caretaker. Those with the most in-home support did not need as much outside help. Those living alone relied more on friends, relatives, and agencies. Family and friends were the most often used source of information, while radio was also mentioned as important (Williamson et. al., 2000).

The researchers found much excitement about the Internet from the participants. Other studies show that blind people who are able to use the Internet feel a sense of empowerment (Berry, 1999). However, libraries did not generate as much enthusiasm. This could be related to a number of reasons. The participants noted several problems with print, such as Braille; many did not read Braille as it tends to be used mostly by those who have been blind since a young age (Williamson et. al., 2000). In addition, libraries in the past have not served blind patrons very

well, aside from large print and talking books. Adaptive technologies for using the Internet are now beginning to be used; the researchers recommended that libraries should seek support of organizations for the blind to help with the cost and training of such software (Williamson et. al., 2000).

Other studies and reports also show that library service to blind populations is not as good as could be. In interviews with blind library users, Eldridge (1982) shows that many blind people do not use libraries; according to one patron, this is because they did not use libraries before losing their sight, so they are even less likely to use libraries after becoming blind. Other patrons suggest that blind and low vision patrons would like to be able to browse the stacks and make their own choices among talking or Braille books. Some of the patrons Eldridge interviewed also felt that society does not take blind people seriously, and that most people with sight feel uncomfortable around the blind. Blind people would like to be taken seriously; unfortunately, many struggle with poor self-image. Eldridge also interviewed librarians and library school students. Many had creative ideas on how to improve services to blind library users. At the same time, some of the library school students did not feel there was much attention given to services for blind users, such as talking books, in the curriculum. In addition, many librarians are not trained in the needs of patrons who are blind or otherwise disabled.

ROLE OF LIBRARIES

Libraries, as the providers of information, should be at the forefront of removing the barriers hindering access to information. The social model of disability by Oliver (1990) builds on the ideas of the United Kingdom's (UK) Union of the Physically Impaired Against Segregation (UPIAS) founded in the mid-1970s. This model is also endorsed by the UK's Society of College, National and University Libraries' (SCONUL) Access Working Group (Robertson 2012). The model requires universal access to libraries, achieved by the construction of ramps alongside stairs, installation of automatic doors, provision of information in Braille and large print, and availability of assistive technologies such as Closed Circuit Television (CCTV), Braille embossers, Screen magnification and JAWS. The enactment of anti-discrimination acts in many countries is required to make mainstream library services accessible to people with disabilities. Libraries must be designed to be universally accessible, and universal access should be the norm; access for people with disabilities should not be an add-on to existing services. In summary, libraries should have equipment in place that facilitates both easy mobility and easier intellectual access for those who are challenged by visual impairments (Deines-Jones 2007).

LIBRARY AND INFORMATION SERVICES AVAILABLE TO THE VISUALLY IMPAIRED

Libraries and information centers around the world have developed specialized information services to meet the library and information needs of their visually impaired clientele. These include:

(1) Braille books- Braille is a system of reading and writing whereby raised dots are used to represent letters which are read by touch. Braille books are appropriate for users who have both visual and hearing impairment.

(2) Talking books- these are audio versions of books that could be recorded on cassettes, CD-ROM, DVD and on the internet as e-books. Talking books are preferred by majority of the visually impaired.

(3) Talking newspapers- audio recordings of news articles in the dailies.

(4) Large printed materials- these are documents printed in large fonts for use by partially sighted users.

(5) Electronic Texts- These are computer text-files. Visually impaired user can load an electronic text in computer and can read the text from computer using screen magnifying software, can print the text in large print and read it from paper, can read the text using braille bar that is attached to the computer and can have the text read out loud by the computer, using a screen reader.

Libraries are also taking advantage of advances in ICTs to increase information access for the visually impaired. A broad range of ICTs otherwise called adaptive or assistive technologies are now available to provide access to information in electronic databases and on the internet, giving blind users equal opportunity as the sighted. These innovative technologies include:

(1) Screen magnifier- this is a software that allows text or graphics on computer screen to be magnified up to sixteen times the original.

(2) Screen reader: a software that reads out the content of a document to the reader.

(3) Voice recognition software: such as JAWS talking software (Convert computer into a talking PC) this allows the user to input data into the computer by voice.

It is not possible for any library to plan for every single patron's needs and selecting, installing and maintaining one or more of the most popular assistive software programs. Therefore, a study highlights five software options for the libraries which can be adopted to provide the services to the blind/vision impaired users which includes 'JAWS for Windows' from Freedom Scientific, 'Window-Eyes' screen-reading program with portable application, 'ZoomText' magnifier/reader and 'ZoomText' keyboard, 'Dragon Naturally Speaking' which is a speech-to-text engine that allows users to dictate into Windows-compatible programs, such as Microsoft Word and Outlook and last one is 'Text Aloud' which is a Text-to-Speech (TTS) software. The library staff should also consider adoption of a long-term strategy for planning for patrons with disabilities (McHale, 2007). Several other important software programs available for library patrons with blindness or visual impairments includes 'Duxbury Braille Translator'(DBT) which is very popular Braille translation program for Microsoft Windows; 'CakeTalking', a computer music and sound creation program that is compatible with SONAR; 'DocReader' which is a talking word processor; 'Reading Bar' a text-to-speech toolbar for Internet Explorer and it is multi-lingual

with capability of translating Web pages; ‘Connect Outloud’, a program that allows users with visual impairments to access the Internet, surf the Web, send and receive e-mail and create documents using the Freedom Scientific word processor; Kurzweil 1000 another text reading software that can read both electronic and printed text that has been scanned into a computer. Text can also be modified, saved, signed or printed by the user. The software includes a calendar application, dictionary, thesaurus and spell checker (Sunrich and Green, 2006).

SUGGESTIVE GUIDELINES FOR IMPROVING LIBRARY AND INFORMATION SERVICES TO THE VISUALLY IMPAIRED

In spite of all such efforts of government, people with disabilities experience barriers in accessing services that many of us have long taken for granted, including health, education, employment, and transport as well as information. Access to information is major problem for the Visually Impaired in India. The purpose of these suggestive guidelines is to provide libraries, governments, and other stakeholders with a framework for developing library services for people who are Visually Impaired. These suggestive guidelines are based on the guidelines for development of library services to visually impaired prepared by IFLA.

1. Mission

As a first step, governments or agencies should establish the mission of their library service for those who are print disabled. Their mission and role is no different than that defined for public libraries in the IFLA/UNESCO Public Library Manifesto:

“The public library, the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups...supporting both individual and self conducted education as well as formal education at all levels.”

2. Library Legislation

Library services to print-disabled persons should be established by legislation. Legislation should identify the roles and responsibilities of levels of governments or appropriate authorities in the creation, acquisition, and distribution of accessible content and the integration of the service through mainstream library networks

3. National Strategy

It is recommended that each country establish a national agency with the mandate to set standards and define, develop, and coordinate a national strategy for library services for people who are print disabled. The strategy should involve a nationwide network of all libraries and special agencies with expertise in services to print-disabled people. It also must embrace technology that can provide access to library services, including adaptive technology.

4. Needs Assessment

The library should undertake an assessment of needs in cooperation with the print-disabled community. This will influence the design and layout of buildings and signs, stock levels and a development plan for alternative formats, the provision of adaptive equipment, and a promotional and reader development program.

5. Meeting User Needs

Print-disabled users are a diverse community. Some are retired seniors; others are students or people employed in many different professions. Some may have multiple disabilities. Libraries must meet the needs of this diverse community of print-disabled persons and provide services. The UNESCO Public Library Manifesto recognizes diversity as part of its service, and libraries should adopt an equally inclusive approach: “The services of the public library are provided on the basis of equality of access for all, regardless of age, race, sex, religion, nationality, language, or social status.”

In the developed world, elderly people with low vision are the largest user group among people who are blind. However, it should be noted that adults and young people are often the most demanding users, because they are attending institutions of higher learning, working, or developing their careers. They often require books or information to support learning or professional needs. In the developing world, even more users fall into a younger age group, and are likely to need support for their education or work.

6. Cooperation and Networking

As information and documents are located all over the world, good libraries have always functioned as part of national and international networks. All libraries should be aware of collections held in other libraries and borrow less popular items from these sources. Good professionals need to maintain awareness of the copyright requirements and protocols for borrowing or lending materials to other libraries for the blind. Libraries for the blind should support their work with direct links to specialized agencies (for example, rehabilitation agencies) serving those who are print disabled.

7. Work with Blindness Agencies

Agencies that provide or advocate for service to print-disabled people often conduct or assemble information on consumer demographics, needs, trends and behaviour. They are likely to be on top of the latest vision aids and technologies and are already providing training to clients or assisting in troubleshooting adaptive devices. Since many people who are blind use both a library service and the services of these agencies, there are substantial opportunities for partnership in supporting adaptive technologies and understanding consumer needs. Libraries should leverage these partnerships rather than duplicating services that are often quite costly to begin with.

8. Collection Development

A library’s collection is the heart of its service and a reflection of its mission. Building a collection to meet the needs of a community requires consideration of its demographic, economic, cultural and racial diversity. People unable to read print due to a disability are a diverse clientele with the same reading needs as any other group. They require collections that include popular materials, information to support

lifelong learning or course work, on-the-job educational resources, and books for all ages, including for children and youth. Jean L. Preer writes, “Any collection is a dynamic organism, continually changing and growing. A well-selected item added to a collection enhances other items in that collection. An item is never an isolated work: it is related to others.”

Collections built for print-disabled readers should include an emphasis on health and vision-related information and represent national cultural collections (these are the books that will be difficult or impossible to get from other sources, since a nation is usually the expert in its own literature). Each library should establish criteria for the selection of materials. These should reflect the needs of the visually impaired community and be balanced to consider things like a wide range of subjects, recreational and information needs popular books, literary classics, and timely materials.

In the Information Age, the advent of the Internet and electronic publishing is changing the way in which collections are created, managed and accessed. Not all material or content for a collection needs to be located on shelves. Content can be housed remotely on Internet websites and in other digital libraries.

9. Access to Service and Collections

Libraries for the blind need to develop strong policies and procedures to ensure that clients can obtain information and leisure reading materials in the formats of their choice and choose the most efficient methods of delivery. Such policies should clearly set out the conditions of service for when and how borrowed materials are to be returned to the library.

Libraries should be aware of the variety of software and hardware solutions used by print-disabled people as they create and expand digital collections. Examples of such solutions include screen reading software, screen magnification software, soft or refreshable braille displays, and braille note takers. This is essential for designing networks and electronic delivery mechanisms. Staff should be competent in helping clients resolve technical problems.

10. Reader Training and Awareness

Libraries need to develop a strategy for engaging readers and providing them with training. Training users in the use of new services and in new technologies that support these services is essential. Libraries should make users aware of new services or changes to existing services. Many libraries for the blind accomplish this through alternative-format newsletters or special training sessions. The Internet can also be an effective mechanism for introducing users to a new service and guiding them through it.

11. Production of Alternative Formats

Libraries specially dedicated to blinds are the major producers of books, documents, and other content in formats that can be read by those who are print-disabled. Traditionally, audio and braille are the primary formats for books and magazines. Today, digital technologies and translation software programs allow multiple accessible formats (including braille, audio,

electronic text, and large print) to be produced from a single "tagged" source file using a mark-up language such as XML

i. Audio Production

Audio recordings are the most popular medium that most blind or visually impaired people use to read. These recordings are known worldwide as "talking books." Talking books have existed in many different formats through history, including cassette tapes and vinyl discs (records). Anticipating the demise of the analogue format, a number of libraries for the blind and other stakeholder organisations formed the DAISY Consortium (Digital Accessible Information System) to develop an international standard and software to produce talking books digitally. A digital talking book in the DAISY format offers browsing capabilities to print-disabled users that are similar to those enjoyed when reading a book in print. "Navigation" is the term used most often in connection with DAISY books, meaning that readers can easily locate chapters and pages, place bookmarks and use and index. DAISY books usually have human-voice narration. These books can also contain the full text of the book being recorded, as well as images or other multimedia content, so that everything can be synchronized and enjoyed as a whole for a wider range of print-disabled users.

DAISY books use MP3 compression techniques so that a single compact disc is all that is required to store almost every book. DAISY books are played on special playback devices or computers that have DAISY software. Books in the DAISY format may be structured or unstructured (allowing lesser or greater levels of navigation). The decision on how much structure to provide is a question of balancing resources with user needs and is made by the producing library.

ii. Braille Production

Before the advent of computers, braille was produced manually using hand frames, styluses, or braille typewriters. These processes were laborious and it could take many years to produce a print book in braille. In the 1970s, computers and electronic embossing machines were introduced, making it much faster to produce a braille book and create multiple copies.

Today, most braille publications are created using translation software. Electronic text is automatically translated into the braille code, embossed on paper, and tagged or bound as required. Braille can now be proofread on screen or from an initial hardcopy. Electronic text is created by scanning a print book or by converting digital text files directly using a braille translation program. With the dawn of the digital revolution, it is possible to have refreshable (also called soft) braille displays or keyboards. These might be portable devices or a keyboard attached to a computer, at a library workstation for example. This has greatly enhanced access to information by visually impaired computer users and offers an alternative to hardcopy braille.

In order to produce correct braille, libraries must have braillists who are trained and certified. A trained braillist must know the rules of braille appropriate to the country and language and be aware of the appropriate braille authorities.

iii. Large Print

Unlike the production of talking books and braille, large print is excluded from any copyright exemptions. It is therefore important for libraries to reach agreements with copyright holders to allow for the production of large print. However, not all large print material need to be produced in-house by a library or agency; often books can be acquired through interlibrary loan

The easiest way to enlarge print is to use an ordinary photocopying machine. However, with this method it is not easy to copy large amounts of text, such as entire books. One way of producing enlarged text is to use electronic files and then print out the text in the desired typography. In most cases, 14 to 16 point is used, which is easily achieved with a word processor. Copyright has to be cleared if it is a protected text.

12. Ethics, Values and Awareness

It is vital that libraries develop ethical standards and values for dealing with patrons and make all staff aware of these standards. Staff should be sensitive to the needs of clients, to privacy issues and to the legislative obligations of the libraries they work for. Library staff should also be aware that print-disabled people have greatly reduced access to information compared to the sighted population.

13. Marketing and Advocacy

Print-disabled users are very often among the poorest of the poor in many countries, usually isolated from others with similar disabilities. Because the majority of people who are blind tend to be elderly, they are reliant on libraries for the blind to aggressively advocate on their behalf. In addition, special techniques are required to market to this group and to make them aware of library service opportunities. All staff should recognize their role and responsibility in promoting and advocating for the needs of these users. Marketing and advocacy initiatives must also engage a wide group of stakeholders, including other agencies and the general public who could support the work of the library.

Many potential users do not know about their rights or the possibility of using accessible-format material through libraries for the blind and similar agencies. Therefore, in each country, the national agency and the library community must market their services to

- Potential patrons
- Existing patrons
- Associations for people who are print disabled
- Blindness agencies
- Educators
- The commercial market (e.g. book publishers)
- Decision-makers and government officials

14. Marketing and Promotions Policy

Each library should have a written communications, marketing, and promotion plan to guide how it publicizes its services. The plan should include methods of evaluating promotional programs. Points to consider when creating a communications/marketing plan:

- Strategies for reaching target audiences in appropriate formats
- Ways of targeting politicians, educators, librarians, community leaders, and industry and technology developers and leaders
- Marketing through other agencies and partners
- Promoting your organization through the media
- Involving patrons as champions of their own needs
- Successful role models
- Addressing patron concerns
- Measures for evaluating the success of communication strategies
- Tools for regular communications with patrons, for example braille, electronic text, and audio newsletters that promote your library service

CONCLUSION

Access to information and knowledge has never been more critical than in the present information age. Those who lack access to essential information are excluded from participating actively in social, political, and economic activities. The visually impaired, especially those living in the developing countries like India have been marginalized for too long because of the dearth of accessible materials. Therefore, Indian libraries in collaboration with other stakeholders must stand up to their moral responsibility in ensuring an inclusive and equitable library and information services to the visually impaired.

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