



Library services to persons with visual impairment

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Abstract

This paper elaborates the role of libraries being played in today's scenario to bring equality in the access to the library and its resources for people with visual impairment independently. It also focuses the traditional librarianship and library services to visitors with visual impairment. Despite the dominating role played by the Internet and digital resources, which are, available in different formats, libraries are still trying their best to provide the equality in its services, and access to the information and resources to its users including the users having a vision disability. It also emphasises the need for information to the visually disabled person for the betterment livelihood and future. Every human wants the information for self-development. So the paper deals with the library services which are presently provided to the persons with visual impairment.

Keywords: Library services; Visual impairment, Information access, Library services equality, assistive technology

1. Introduction

Visual disability can be inherited, by birth or can be developed in later life due to any medical or accidental cause. Some visual disabilities are stable, whereas some others can get deteriorate or recover or fluctuate as time passes. It is not always obvious that someone has a sight disability require individual adjustments. Visually disabled students have to work harder compared to proper sighted students, to win their disabled counterparts.

People having visual disabilities has to rely on audio recordings, tactile, Use of screen-reading software, Braille rather than visual usability. In addition to this, assistive media and enlarged print in both printed



and magnified computer screen, reduce the ability to scan information, and it requires more concentration and efforts. Disability Discrimination Act (1995) has made a provision for differently abled persons aiming to end the discrimination against disabled people in employment and access to goods, facilities and services based on disabilities. For the act, a disabled person is defined as anyone 'with a physical or mental impairment, which has a substantial and long-term adverse effect on their ability to carry out normal day-to-day activities'. Copyright Act (2002) for Visually Impaired peoples have made a provision for a visually-impaired person to make a copy of a literary, artistic, dramatic or musical work, or published edition under certain conditions in an accessible format for their use to get enriched with the information or knowledge of their interest. However, the act has made a restriction that the format of the document after conversion must not be made available commercially, but the visually-impaired people's community must have lawful access to a copy (e.g. in a library or archive). As per the definition is given for the visually-impaired person in the act is 'one who is blind or partially-sighted or has uncorrectable sight loss or who has a physical disability which makes it impossible for them to hold a book or move their eyes'. This act makes it possible to provide a book in an alternative accessible format, which may include the creation of an audio file.

2. Information Needs of Visually Impaired People

A user is a person who comes to the library with a desire to use the library resources or to get the information. Normally a user is a registered reader of the library or having a valid entitlement to access the library resources. User can be a visiting student or faculty or any other institution. The user may also be any staff, Graduate or undergraduate student, Mphil or PhD student, Diploma or certificate course student. Library user can be learner through distance mode, researcher or affiliated to any international institution in any teaching discipline or category or on placement in the academic or research-oriented institution in their own country or abroad. User can be of normal or disabled category. The user under any disabled category also reserves the right to expect equality of access to the library material born or available in any format, unlike the other category users for their purpose of learning or teaching opportunities.

Visually impaired students also need to use the library resources for their any project work, to write their term paper, article, Mphil or PhD theses. They also need the information to enhance their knowledge for their good well being and to raise their living standard, to get an employment etc. The need for information of visually impaired users may be different from the normal student. Many times need the have specific and pinpointed information. We can say they expect tailor-made information from the library or library staff.



3. Role of Libraries

According with Machell (1996) “The ideal library service is one where each, regardless of the degree of visual impairment, has access to the materials and information at the time they are required, in a format that can be used, in the quantities that are needed, and where the needs of the user are understood by the staff.” In the traditional period, the library provides books and other facilities such as Brailier, Braille Slate, Separate room, Braille paper to the visually impaired students. Few personalised services like providing the book on demand were given to the visually impaired peoples. As the days got changed with the knowledge explosion and due to it, the era got changed. There was a commitment to the role of the libraries to bring equality in the access of the library and its material for visually impaired users. It was also embraced by the other institutions and other organizations. In fact, at many times, libraries can be the first social institution or maybe government to cater to the information services among the different category of the users. They recognize people with different disabilities while delivering services. With the advent of information technology the internet came into existence and libraries were the first to see the potential of the internet, and all this made the birth of digital content, the data/content which can be seen or shared with the help of internet. This digital content is stored at one place in a server can be accessed from multiple locations at the same time with the help of internet. There are no limitations of computers left, different mobile devices such as smartphone, laptops, smart TV, I-pad etc. has made the alternatives available for computers. WiFi made the connection of the internet to mobile devices very easy.

After the need for inclusion of digital content in the libraries, many libraries have started or developed few library services which can be delivered online like ask a librarian, document delivery etc. The growth of information technology led to the invention of assistive technologies, and this helped the libraries to provide the services to visually disabled people with equality. Over time the different statistical studies shows the gradual increases in the accessibility and usability of electronically accessed materials subscribed by the libraries and library web sites by the library users. So the different libraries have started designing their websites to host the information about their services, library catalogues and other information. Slowly, with the requirement of other category of users such as disabled users, the need of accessible website through screen readers arise, and therefore, the libraries started developing the accessible websites which can be accessed with the screen reading software.

Librarianship of today’s era has started demonstrating their different library facilities and services their activities, information about outreach programs, extended services, and subscribed collection of different digital resources to enhance the usage by the users. It is also an idea that libraries can provide services to all kinds of patrons, including the patrons with visual impairment. Libraries are now a day's acquiring



talking books and updating the availability on their status on WEBOPAC to fulfil the requirement of visually impaired students. Anyone can access the library catalogue on the website to know the availability of books and documents. Facility to enlarge the font size of the website is also available.

In the university system, the Executive council is the apex governing or decision-making body and is also responsible for compliance across the university system, and it makes the managers accountable and responsible for the action for the development of students and faculty members by furnishing the books and documents. Giving help, assistance or support to the disabled students is the university system responsibility. Services to the students include access to books and documents, IT support, teaching and skills training, and e-learning facilities. Today's libraries are an integral part of the university system, and so it has to be integrated with the different schools of teaching for the dissemination of information, lending books and documents and with other information services. Similarly, the library has to be compliance with the services among students, whether disabled or normal students. The library management approach to deliver library services must cascade through all levels of the university system for library learning resources services.

4. Literature Review

A survey was conducted on the literature published over 10 years in the field of library and information science with the inclusion of other field like information technology, assistive technologies. Purpose is to understand the latest trends and technological development for the visually impaired users specially in the academic libraries to make the academic information accessible in the desired or accessible formats. The areas of the study included Assistive technologies, Information services for the academic libraries especially relating to visually impaired users, information and communication technology for visually impaired users. The survey of the literature shows that most of the studies are done in USA and India and relates to all kind of visual disabilities. Some of the important studies relating to assistive devices, hardware and softwares to make their reading writing and learning academically efficient are given below:

Poudel, 2016 elaborates that assistive technology have improved the higher education outcome and has also linked it to the academic progress of the students with disabilities. This means that the students who are using or have adopted the use of assistive technology are doing well in all areas. Few factors includes prior skills, experiences while using assistive technology and timing to introduce Assistive Technology among the visually impaired students. Poudel also discussed the existence of established assessment and evaluation guidelines while procuring the assistive devices through decision-making processes. He gave



the points which influence the adoption, use or rejection or abandonment of assistive technology. Students have made remarkable academic improvements with the use assistive technology. It has boosted their overall performance of the students.

Foley and Masingila, (2015), The authors have explored the use of latest mobile technology and found that smart phones are as assistive technology for visually impaired students in today's environment. They have tried to measure the impact of the use of today's smart phone devices for the visually impaired students and have found that these devices have helped the students in providing with (a) access to academic information (b) the means to participate in everyday life and (c) the opportunity to create a social platform. The suggestion from the finding of this project is that communities of practice are both a viable and a valuable approach for facilitating the diffusion and support of mobile devices as assistive technology for students with visual impairments in resource-limited environments.

Tripathi and Shukla, (2014) Authors have attempted to highlight that the Indian, Canadian and UK academic libraries are using assistive technologies. In general authors have laid the emphasizes upon the importance and use of assistive technologies and their use for visually challenged students. Further they have suggested to implement the use of assistive technologies in academic libraries to make the visually impaired learners self sufficient and independent which will also accomplish their academic and research pursuits. This study has adopted the convenience sampling for collecting the data.

Maatta and Bonnici, (2014) have recommended for adopting the use of e-readers in academic libraries and have also reported the use of e-readers in the academic libraries for the educational purposes of visually impaired students. The authors suggested that it will help the librarians to provide better access to information seeking persons especially with the specialized need.

Hussin, (2014) described in his paper about essential tools of visually impaired students. In 2009 Malaysian Govt. has introduced digital talking books for few selected subject. This has facilitated the students and has enhanced the learning. This study describes the factors that influence the visually impaired students should adopt the use of digital talking books or to reject the use of DTB. This study explores, describe and inter-prate the experiences of the students using digital talking books to facilitate their learning. Data were obtained from 12 students using interview method. Tentative themes have emerged and were refined. The themes have become the six emergent super-ordinate themes for this research



DNIS, Disability and Information News Service, (2011) A draft was coined to frame a national policy for the accessibility of e-text by National Centre for Promotion of Employment for Disabled People (N.C.P.E.D.P.) in collaboration with Barrier Break Technologies. The main objectives behind was to provide information services to the persons with disabilities and to assure the equal access to information and communication technology and services. This policy further expanded in the United Nations Convention for the Rights of Persons with Disabilities which India has ratified.

Mate, Brabara T (2010) has mentioned in his paper about the creation of accessible WebPages so that the websites may become accessible for the every user and it may not be difficult specially for visually impaired users. This does not have to put extra cost to accomplish. Libraries should keep in view about the user community and should not become any barrier around while creating their virtual libraries. Libraries and librarians should encourage and allow the aggregators and vendors to supply the electronic collection that is accessible to all their users specially by print disabled.

Pescod, (2009) The paper describe about the devices that can easily convert any digital file into Braille, audio or large print, as per the need and requirement of a blind user. The text documents can be read by the Text-to-speech screen readers to a blind person. There are no any barriers available now for the blind on the pathway to access any electronic content of the e-book. However, the author feels that there are still 95% of books available globally which are not under any initiatives to make them available in other accessible formats such as Braille, large print, or analogue or digital audio

Koganuramath and Choukimath, (2009) have highlighted the initiative of new library services using ICT facilities which started at M.K. Tata Memorial Learning Resource Centre, established in 2008 at TISS library to keep the library updated with the advanced services in the era of information technology. The authors are Librarians of Sir Dorabji Tata Memorial Library, TISS and believe that the services will help the visually handicapped students in accessing information of central Library with the help of adaptive and assistive technology like scanning the print books and converting them in to e-text or E-contents and this can be further accessed through screen readers and text to speech softwares. They mentioned that this centre is having of about 15 latest configurations computers and 10 HP flatbed scanners are affixed to do the scanning work. This paper was presented in 7th International conference organized by INFLIBNET and held at Puducherry University, Pondicherry.

5. Library services for visual disabled Patrons: Future perspective

With the emergence of the Hybrid Model, it shows that in future, the public and special libraries will get merge for the quality information services to the user community. The “hybrid” model has already been



introduced in the developed countries like UK and USA with the changing trends by adopting the advanced and highly digital, and technologies available.

Since the digital information is emerging in abundance there is immense possibilities and opportunities to end the exclusion of the pupils with visual impairments and also there are high hopes to make their full participation as regular users of information and literature in the libraries with the integration by well-designed and tailored services which can integrate both traditional and digital library services. In the global world and developed countries like the UK and USA, the libraries are encouraging and embarrassing the users with different disabilities.

"National Accessible Library Service (NALS) would be a co-operative enterprise drawing on the strengths of all sectors to serve all citizens who need its services. It should not be limited to any one sector, such as higher education, nor to use for particular purposes, such as education. Its dual focus would be on encouraging all content suppliers and brokers, including libraries, to take accessibility seriously and on facilitating access to material in appropriate formats. NALS would take its place as a part of the enabling infrastructure of the UK's Distributed National Electronic Resource (DNER), drawing on distributed resources as far as possible and making maximum use of electronic formats where these are suitable for delivery and access by blind and visually impaired people. In support of our progress toward a completely digital future, NLS has undertaken an eight-point in-house technical research and development program."

The Disability Discrimination Act requires institutions to make anticipatory provision for disabled students and reasonable adjustments for individual students. The total institutional resources are taken into account when considering what is reasonable, rather than purely those of one department. Thus some support for disabled students would be absorbed within the mainstream budget.

6. Information Services of libraries to the Visually Impaired

As per the guidelines issued by IFLA for the Development of The Public Library Service (2001) towards the patrons with visually impairment that "The development of collections should be based on the principle of access for all and include access to formats appropriate to specific client groups, for example, braille and talking books for blind people."

Different Academic libraries, special libraries and public libraries are trying their best to provide instant and quality information services to all categories of their users. Libraries and Librarians are not



discriminating their users on any ground. Libraries of today's era have implemented the latest technologies and trends to facilitate the user with information using IT and other assistive technologies or some other available technologies. Similarly, the libraries have extended/developed the tools and techniques to serve the disabled users. For users with a visual disability, libraries have started using assistive technologies to make the users self-dependent. Libraries have purchased this software such as a screen reading software - JAWS; OCR, scanning with speech and dictionary enabled and TTS software - Kurzweil 1000; ZoomText - magnifier/reader software; computer fixed with headphones; a flatbed scanner; Magic - Screen enlarger software etc.

Few libraries are also providing the service called Book retrieval and document scanning and OCRing the scanned document on request to the visually challenged or disabled students.

Effective practices of the academic and public libraries are being made for serving individuals with visual impairment. A consistent part of daily practices and policies are more effective, which ensure the dissemination of quality and complete information services. Due to changing populations of students under such category, library outreach to the local disability office and communication to library professionals is essential. Libraries follow standard practices for acquiring, assessing, and purchasing library resources require conformity to meet the legal standards to become an “accessible” library.

7. Suggestions and guidelines

Librarians must take initiative/shared initiatives to designed and improve the access of the library and its resources to the people with different disabilities. Especially, the public libraries can support socially by extending the services by making the participation of people with disabilities in different cultural and academic activities:-

- To ensure the availability of assistive technologies in the small and community libraries.
- To make the computers available in the community libraries.
- To make the e-newspapers available in the community libraries.
- To make the digital content subscribed in the libraries or to be made available on sharing or loan basis.
- To induct the staff with assistive technologies and to train the staff to assist the users with visual disabilities.
- To make the library building barrier-free and accessible physically to the visually impaired students.



- Talking lifts to be installed.
- Floor tiles to guide the path for visually impaired peoples.

The different welfare societies, associations and organisations should take an initiative to inform government bodies and to improve the lives of people with different disabilities. The strategy must be fixed with specific priority actions. The public libraries can also give help in economic, social, and cultural participation for people with disabilities:-

- Inclusive and accessible communities—the physical environment including public transport; parks, buildings, and housing; digital information and communications technologies; civic life including social, sporting, recreational, and cultural life.
- Personal and community support—inclusion and participation in the community, person-centred care and support provided by specialist disability services and mainstream services; informal care and support.
- Learning and skills—early childhood education and care, schools, further education, vocational education; transitions from education to employment; life-long learning.

8. Production of Alternative Formats

Libraries are, no doubt non-profit organisations. Libraries are also called an institution which always makes expenses. The libraries get funds from govt. through the taxes and cess collected by the population. Libraries are called the temple of knowledge where all the kind of books and documents are available, which helps the users/students to develop wellness in their lives. Libraries get the different categories of users and libraries owes the responsibility to serve all the category users. For which the different academic organisations and universities must take the initiative to develop and produce the alternative accessible formats for the dissemination of information to the user of all the categories.

- The information in digital downloadable PDFs formats.
- Documents which can be able to be read by OCR technology
- e-journals and e-books to be offered in EPUB 3 format;
- WAI-ARIA standards to provide more functionality (Dresselhaus, 2013).
- Audiobooks to be generated and produced for visually impaired users.
- e-books and e-journals to be subscribed
- Braille books must be developed for visually challenged users



9. Conclusion

In general, it has been observed, and the statistical data shows that Print-disabled or visually impaired persons are often poorest of the poor around the globe in almost all the countries, usually isolated from others with similar disabilities. But nowadays these peoples are also forming associations and trying to bridge the gap between each other for the good sake of their own well being and the well being of other disabled peoples and moving ahead to grab the opportunities available for them. These associations are working for the welfare and further designing the strategies for the upliftment of community of visually impaired person. Sending requests and proposals to make the government aware of their problems and conditions and make some reservations and policies for their benefit. The majority of people who are blind tend to be dependent upon the libraries may be public or academic, which helps blind people aggressively to advocate them on their behalf. Also, these libraries are introducing the special techniques available in the market to this group by not taking any extra fees/charges just to make them aware of the latest information and opportunities available to them. Library staff also recognize their role and responsibility and helping in promoting and advocating for the needs of such users. In India, especially the marketing and advocacy initiatives by agencies or associations are doing either free of cost or with very minimal charges. The general public who could extend its support for this community is doing the needful. Libraries have written policies and promotion plan to guide how it publicizes its services among visually impaired users. 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 and the purpose libraries and their staff are trying to educate such users. Many users do not know that what facilities are libraries providing for visually impaired persons such as tools for regular communications with patrons, for example, Braille, electronic text, and audio newsletters that promote your library service.



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