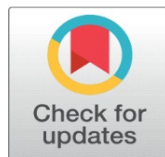


INCLUSIVE LIBRARIES FOR ALL: EMPOWERING DIVYANGJAN THROUGH ACCESSIBLE LIBRARY SERVICES WITH SPECIAL REFERENCE TO HI & VI USERS

Anil Kumar Mishra ¹✉, Zulfiqar Ahmad Khan ²✉

¹ Department of Library and Information Science, Mangalayatan University, Beswan, Aligarh-202146, Uttar Pradesh, India



Corresponding Author

Anil Kumar Mishra,
dearanielkumar@gmail.com

DOI
[10.29121/shodhkosh.v5.i6.2024.5748](https://doi.org/10.29121/shodhkosh.v5.i6.2024.5748)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2024 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



ABSTRACT

The paper examines the measures initiated by academic institutions in India to serve library patrons with disabilities. This study assumes that "Libraries in India are serving persons with disability (HI & VI) abide by the well-established guidelines and principles in conformity with the existing laws to the optimum level." Academic libraries from different regions of India have been selected to perceive responses to the questions based on services rendered to persons with disabilities. The paper highlights our hearing-impaired and visually impaired users, which need to be addressed for assistance and education to be imparted to academic institutions. The paper concludes with the findings that there is much scope for university libraries to add more assisting technologies for serving persons with disabilities more effectively and at ease.

Keywords: Differently Abled Person (DAP), University Libraries, Persons with Disabilities, Visually-Impaired (VI) Person, Hearing-Impaired (HI) Person, Divyangjan

1. INTRODUCTION

Libraries serve as vital hubs for information and growth in their communities, enabling people to explore, learn, and develop. According to the legislation, people with disabilities are uniquely capable individuals who can do better with additional work and the best support system. As Easter Seals famously remarked, "The worst thing about a disability is that people see it before they see you." Regardless of whether their impairment is a result of their nature or an accident, people with disabilities are just as brave and driven to succeed as those without disabilities. Regardless of problems in their life, those who wish to do their best for the sake of mankind and their best efforts must be given the greatest tools and support systems available. By its very nature, the law in practically every nation offers a support system for people with impairments. The first law in India to provide help for individuals with disabilities was the Persons with Disabilities (Equal et al. of Rights and Full Participation) Act, which was introduced and enacted by the Indian parliament in 1995. In 2017, the Act's provisions were once again updated to include the Rights of Persons with Disabilities.

The Act's contents were revised once again in 2017 and approved the Rights of Persons with Disabilities Act, 2016 in order to ratify the 2006 United Nations Convention on the Rights of Persons with Disabilities, which the Indian government had ratified and signed in 2007. With its strong fangs, the Disability Law of 2016 emphasizes a number of measures that adopt different standards to give the best and most practical educational assistance system. The goal of the article is to learn about the efforts academic libraries in India are doing to provide the best services possible to students with disabilities who are enrolled on campus. However, the vast array of services, resources, and institutions that are available to students with visual and hearing impairments sometimes creates an intimidating and stressful experience. This conflict is regrettable because, many HI & VI persons who regularly use libraries encounter various obstacles or difficulties that prevent them from using or engaging with these important venues. The main way to educate library patrons about something, such an impending event, is to speak at designated locations within the library. This is typically the only spoken language that is utilized. The hard of hearing are severely disadvantaged by this over-reliance on sound.

Furthermore, most library assistance staff members provide instructions by mouth in an attempt to sound them out, which regrettably makes the majority of students with vision and hearing impairments feel excluded and alone. When these individuals rely too heavily on accurate information depiction, they may become original elitists and stop doing educational widening, which is what libraries are supposed to accomplish. To accommodate the many demands of HI & VI users and provide a really welcome atmosphere, libraries must plan ahead, show consideration, and be innovative. All community members will be able to benefit from and utilize all of the opportunities that are available to them in the libraries if they make it their goal to guarantee that all communities, regardless of their visual or auditory abilities, may use and appreciate the information and the assistance that is being offered to them. This emphasis on inclusion benefits not just the general public but also persons with hearing or vision impairments when they visit libraries

Assistive Technologies:

The library should offer access to assistive technologies, such as magnifiers, screen readers, and specialized software, to enable individuals with disabilities to independently navigate digital resources. Persons with visual impairments are unable to access approximately 95% of the internet. Even so, this does not inherently imply that individuals with visual impairments are unable to coexist with the ever-expanding digital realm. Screen readers, which are assistive software, are capable of being implemented on any computer. Independently operating a computer and browsing the Internet is simplified for individuals with visual impairments as a result of these software components. Consequently, screen readers are essential for improving the accessibility of information for visually impaired patrons. Screen readers are programs that allow users to read the text on their computer or view it on a braille display that is connected to the computer. Before installing any of them, it is crucial to verify that the software is compatible with your operating system and braille screen (if applicable). It is recommended that you review the software's command structure and inputs in advance to guarantee that you can rapidly acquire them. Some of the screen readers that are provided are paid software, while others are free. If you are required to upgrade to a paid version of a screen reader, do so with enthusiasm, as this will be the most beneficial investment for personal independence.

Kibo

Due to their inability to freely access printed, handwritten, and scanned digital documents, 6.7 million visually impaired pupils (ages 5 to 18) globally do not receive an equitable education. Despite their reliance on audiobooks or Braille, fewer than 1% of the text is accessible in Braille, and audio recording a 300-page book takes over 30 days. Moreover, pupils who are blind or visually handicapped often do not acquire proficiency in Braille. Here, we discover that Kibo is a comprehensive solution that empowers them toward inclusive education by allowing them to Listen, Translate, Digitize & Audiotize printed, handwritten, and even scanned digital documents in 60 different languages. Three items from Kibo are designed to help visually impaired pupils who struggle with reading: 1. Kibo mobile application - enabling portable, audio-centric access to material 2. The talking table light Kibo XS gadget for handwritten and hardcopy printed materials 3. Kibo Desk is an online application for scanned PDFs and softcopy photos. Important characteristics of handwritten, printed, and scanned-digital documents include: 1. Listen in over 60 worldwide languages Translate into over 100 languages 3. Convert to editable Unicode forms - Doc, Docx, Txt Convert to MP3 audio formats. Through the use of cutting-edge AI and cloud computing, Kibo provides users with immersive reading-learning capabilities like bookmarks, audio highlighting, spelling mode, content-summarization, and more, enabling them to study at a pace comparable to that of their sighted peers.

Job Access With Speech (JAWS)

This is one of the most frequently employed screen readers on a global scale. It is compatible with all versions of the Windows operating system since Windows Vista. We have the ability to read any text on a computer screen, including e-books and word processors, and to navigate the Internet using JAWS. A 1.5GHz processor and 4GB of RAM would be advantageous when operating JAWS on a PC.

Non-Visual Desktop Access (NVDA)

The most widely used free screen reader is this program. When it comes to getting acquainted with screen readers, this can be the greatest choice for new users.

Apple VoiceOver

People who use Macs should get this screen reader because it works so well with Mac OS X. This is the best screen reader for Mac or iPhone users. VoiceOver is a great screen reader because it takes advantage of the touchpad and movements in addition to the usual features of a screen reader.

Orca

Linux has recently gained popularity. Orca is the best screen reader if Linux is used as the OS. There are a few more screen readers for Linux, but Orca is the most popular. Orca has also been included in the Ubuntu installation CD to allow blind persons and persons with visual impairments to interact audibly during installation after just a few keystrokes.

Dolphin Screen Reader

Because of its excellent features, both people and companies like this premium screen reader. Dolphin Screen Reader offers a natural-sounding text-to-speech voice, in contrast to the majority of other screen readers. The program contains every function that makes a screen reader of the highest caliber. A CPU operating at 1.5 GHz or above, 2 GB of RAM, and 5 GB of storage are required.

Accessing library services can be extremely difficult for students with hearing impairments due to technical obstacles. Digital catalogues, online databases, and multimedia material are only a few examples of library resources and services that often rely on certain technology that might not meet their demands. Audio elements in instructional materials or online courses, for instance, might be difficult to follow without the appropriate adjustments, such transcripts or captions. Furthermore, it might be challenging for deaf students to get support or assistance since communication methods like chat services or virtual assistance might not be made with accessibility features in mind. These restrictions may impede their general involvement and academic achievement, underscoring the necessity for libraries to adopt more inclusive technology and substitutes.

Accessible Facilities

Inaccessible Online Resources:

A significant number of the online resources that are made available by libraries, such as databases and electronic books, typically lack accessibility features. Two instances of how this gap could manifest itself are the insufficient availability of transcripts for audio resources and the absence of captions for video content. Those who are hard of hearing or who employ formats that are dependent on text may find it challenging to make the most of these helpful features as a consequence of this effect. It is necessary to pay attention to these accessibility problems in order to guarantee that all users have equal access to the information and services that are offered by libraries.

Communication Needs:

One of the significant barriers that deaf students encounter while trying to access the services offered at the library becomes a considerable communication barrier. The tendency exists to interact with library personnel one-on-one through speech, and a substantial number of instructional and resource materials are auditory. Such over-dependence on hearing creates an extreme situation, making it more challenging for those students with hearing impairment to get crucial information and help. Consequently, these students sometimes go through several frustrations that makemake it impossible for them to utilize the various library services. The quest for better communication always creates a feeling of loneliness and disconnection, which limits them from getting essential academic chances. Such a limitation hinders the rate at which a person can learn or achieve their goals as well as their personal development and overall success and quality of future life.

Need of Sign Language Interpreters:

Numerous libraries encounter a severe deficit in interpreters proficient in sign language, thus significantly hampering deaf learners' interaction with librarians. Such crucial deprivation may give rise to anger and despair as it makes coping without basic tools and needed help very difficult. As a result, this either hinders their engagement with the full range of services that the library is designed to offer or reduces the effectiveness of their learning experiences and development opportunities.

Insufficient Captioning:

Several items in the library lack subtitles, including instructional films and online courses. This deficiency results in deaf pupils facing more challenges in fully engaging with and acquiring essential knowledge. These pupils may forfeit crucial educational chances and resources readily accessible to their hearing counterparts. Implementing closed captions on all digital content should be a primary objective for libraries to ensure equitable access to educational resources for all students.

Need of Awareness:

There is a possibility that a significant number of library staff members are not fully aware of the specific requirements and challenges that deaf students experience. It is possible that this lack of understanding may result in inadequate help and services that are tailored specifically for this population. There is a possibility that professionals working in libraries would fail to recognize the necessity of providing accessible resources, such as interpreters who speak sign language or multimedia items that are captioned. Furthermore, if library personnel are not adequately educated in communication strategies, it may be difficult for them to interact with customers who are hearing or visually impaired. This may cause these customers to feel overlooked and neglected in their academic attempts. It is of the utmost importance that this knowledge gap be closed in order to ensure that each and every student has impartial access to the materials and services offered by the library.

Additional points for making the library more accessible:

- Get to know the specific difficulties that disabled students encounter and collaborate with disability advocacy groups and professionals to discover ways to overcome them.
- Instruct workers on inclusive practices, communication strategies, and methods so that they may better accommodate customers with disabilities.
- Use the user's name wherever possible and don't make assumptions about their competence or understanding.
- Be flexible and open to new ideas to demonstrate that you can accommodate a wide range of individuals.
- Make everyone feel welcome and appreciated by cultivating an open and inclusive atmosphere.
- Provide transportation assistance to students who have mobility issues.
- Collaborate with other groups to provide specialized services, including sign language interpretation or Braille transcription.
- Engage a professional to serve as the project manager in charge of accessibility.
- Asking students with disabilities for their opinions will help you figure out where the library could use some work.

2. CONCLUSION

The library can partner with disability organizations to co-create programs and events, share resources, and promote accessibility initiatives. This can help to build stronger relationships with the disability community and ensure that the library's services are truly inclusive.

The library can actively recruit and hire staff with disabilities. It can help to create a more diverse and inclusive workplace and provide role models for patrons with disabilities.

The library can train staff on disability awareness, inclusive practices, and communication techniques. This can help staff develop the skills and knowledge they need to provide excellent service to all patrons, regardless of their abilities.

By actively collaborating with disability organizations and experts, the library can create a more inclusive and welcoming environment for all patrons. By implementing these strategies, libraries can create welcoming and inclusive environments that empower individuals with disabilities to access information, knowledge, and cultural resources. Visually & Hearing-impaired students encounter various significant challenges when utilizing library services. These obstacles manifest in different forms, such as communication needs that hinder effective interaction, physical obstacles that prevent easy access to facilities, technological barriers that limit the use of essential digital resources, and attitudinal obstacles rooted in misconceptions or lack of awareness among staff and other patrons. To foster an inclusive environment and promote the academic success of visual & deaf students, libraries must proactively address these challenges by implementing thoughtful and targeted solutions. For instance, providing trained sign language interpreters can facilitate better communication during library events and consultations. Additionally, ensuring that library resources are accompanied by accurate captioning will enhance the accessibility of multimedia materials for all users.

Furthermore, it is crucial to provide comprehensive training for library staff focused on understanding the unique needs of hearing-visual-impaired students and developing effective strategies to support them. These initiatives create a welcoming atmosphere and empower hearing & visual-impaired students to engage fully with library services. By committing to these improvements, libraries can play a vital role in levelling the playing field, ensuring that visual and deaf students can access critical information and resources to achieve their academic objectives.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- Aftab, M. J., Amjad, F., & Qudoos, A. (2024). Academic Barriers of Students with Hearing Impairment at the Undergraduate Level (A Case of Two Public Universities). *Al-Mahdi Research Journal (MRJ)*, 5(4), 257-264.
- Ariya, P., Yensathit, Y., Thongthip, P., Intawong, K., & Puritat, K. (2024). Assisting Hearing and Physically Impaired Students in Navigating Immersive Virtual Reality for Library Orientation. *Technologies*, 13(1), 2.
- Bashir, R., Fatima, G., Malik, M., Younus, M. & Ali, I. (2017). Library resources for persons with special needs: A quantitative analysis. *Bulletin of Education and Research*, 39(2), 215-224.
- Chandrakanth, H.G. & Reddy, K. R. (2019). Library Facilities and Services for Differently Abled Students in Universities of Karnataka: A Study. *Library Philosophy and Practice (e Journal)*. Published. Retrieved from: <https://digitalcommons.unl.edu/libphilprac/2639>.
- Dodamani, A.M. & Gedam, S. (2017). Users' awareness of sugamyapustakalaya: An online library for the visually challenged in India. *Library Progress (International)*, 37(2), 234-243.
- Dodamani, A.M. & Dodamani, S.M. (2019). Provision of assistive technology for students with visual impairment in university libraries in India. *DESIDOC Journal of Library & Information Technology*, 39(3), 104-108.
- Datta, P., Halder, S., Talukdar, J. & Aspland, T. (2019). Barriers and enablers to inclusion of university students with disabilities in India and Australia. In S. Halder, & V. Argyropoulos (Eds.). *Inclusion, equity and access for individuals with disabilities: Insights from educators across world*. (pp. 525-553). Singapore: Palgrave Macmillan.
- Fernández Batanero, J. M., Rueda Montenegro, M., Cerero Fernández, J., & García Alonso, S. (2022). Challenges and trends in the use of technology by hearing impaired students in higher education. *Technology and Disability*, 34(2), 101-111.
- Green, M.P. (2020). Inclusive library service to individuals with mental illnesses and disorders. *The International Journal of Information, Diversity, & Inclusion*, 4(1), 119-126. doi: 10.33137/ijidi.v4i1.32500.
- Gur, K., Dolaner, G., & Turan, S. R. (2020). Health literacy of hearing-impaired adolescents, barriers and misunderstandings they encounter, and their expectations. *Disability and Health Journal*, 13(4), 100929.
- Irvall, B. & Nielsen, G.S. (2005). Access to libraries for persons with disabilities CHECKLIST. IFLA Professional Reports. Report no. 89. Retrieved from <https://www.ifla.org/files/assets/hq/publications/professional-report/89.pdf>.

- Kori, D., & Mulla, K. R. (2024). Soundless Success: A Comprehensive Study of Academic Information Access for Hearing-Impaired Students in Karnataka.
- Molepo, L., Mojapelo, M., & Ngoepe, M. (2024). We may be visually or hearing impaired, but we need access to visual and auditory information. *Collection Management*, 49(3), 145-164.
- Mishra, N. (2014). A Comparative Study on functioning of student with the special need and Students without Special need. *International Journal of Peace, Education and Development*, 2(2and3), 111-115.
- Best Screen Readers for Persons with Visual Impairment. <https://wecapable.com/best-screen-readers-free-paid/>
- MIT Solve. <https://www.solve.mit.edu/challenges/re-engage-learners/solutions/58761>
- The Digital Divide: Addressing Inequalities in Access to Technology – Scatty.com. <https://scatty.com/the-digital-divide-addressing-inequalities-in-access-to-technology/>
- How Does Healthcare Impact Low-Income Individuals?. <https://solidamerican.com/healthcare-policy/healthcare-impact-low-income-individuals/>
- Blacks and Other People of Color in the Bible | ALCJR Enterprises. <https://alcjr.com/blacks-and-other-people-of-color-in-the-bible>
- Payment Security Market Size, Share & Growth Analysis | 2032. <http://www.skyquestt.com/report/payment-security-market>
- The Crucial Need for Teachers to be Trained in Special Needs Education | MindFORCE. <https://asasedu.com/the-crucial-need-for-teachers-to-be-trained-in-special-needs-education/>
- About - Hyde Beauty Essentials - ogden, UT. https://sandysprings.bubblelife.com/community/hyde_beauty_essentials
- <https://learn.robinhood.com/articles/3pv0qUz5Ld2BQEoPYOgo5j/what-is-a-bank/>
- Savshka Communications | Connecting Business Globally | Bulk SMS, Email Support, Voice Support. <https://savshka.com/consumable.html>
- What is Skills Based Hiring? | Recruiting Headlines. <https://recruitingheadlines.com/what-is-skills-based-hiring/>
- Inclusive Impact | SG | Cushman & Wakefield. <https://www.cushmanwakefield.com/en/singapore/about-us/diversity-equity-and-inclusion>
- [Academic Positions] Job alert from - GECE. <https://jobbenaj.web.app/11506/75093.html>
- Electronic Warfare Market size to grow by USD 6.36 billion during 2022-2027, Increasing use of UAVs in electronic warfare to drive the market growth, Technavio - SO. <https://shoppingonline.my.id/electronic-warfare-market-size-to-grow-by-usd-6-36-billion-during-2022-2027-increasing-use-of-uavs-in-electronic-warfare-to-drive-the-market-growth-technavio.html>
- <https://wecapable.com/best-screen-readers-free-paid/>
- https://link.springer.com/chapter/10.1007/978-3-031-22298-6_37
- <https://skiesmag.com/press-releases/air-canada-issues-annual-report-highlighting-achievements-in-2023/>
- <https://galtstaffing.com/2024/08/19/inclusive-advocacy-8-signs-your-workplace-fights-against-disability-discrimination/>
- <https://mytunbridgewells.com/your-workplace/>
- <https://inclusivecareservice.com/transportation-services>