



## ADDRESSING THE INFORMATION NEEDS OF PRINT DISABLED PATRONS: AN OVERVIEW OF FACILITIES AND SERVICES AVAILABLE AT KRC OF R.T.M. NAGPUR UNIVERSITY

Dr. Pooja P. Dadhe

Assistant Librarian, Knowledge Resource Centre, R.T.M. Nagpur University,  
Nagpur.

### ABSTRACT:

Assistive Technologies (ATs) have evolved considerably in the last decades and are being used extensively. ATs are the hardware and/or software solutions that help people to work around the challenges they have. The introduction of ATs in the domain of education has eased the transfer of knowledge to a great extent. The present study overviews the availability of ATs in the Knowledge Resource Centre (KRC) of Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) for patrons with print disabilities. It briefly discusses the legal framework concerning the rights of differently able people in India. It also focuses on the roadmap of KRC-RTMNU to strengthen the facilities and services including promotional activities and staff training.

**Key words:** -Assistive Technology, RPWD Act-2016, Print Disabled, Inclusive Library

### INTRODUCTION:

The Census 2011 revealed that in India out of the 26.81million disabled persons, 5.03 million (19%) are with disability in seeing (GOI, 2016). Better education and more access to jobs can enable the people with visual impairment to become an integral part of the society thereby help the country achieve higher economic growth (Dodamani & Dodamani, 2019). Understanding the responsibilities towards its citizens especially the people with special needs, many initiatives are taken by the government from time to time to make them self-sufficient and independent. As an important step in this direction, in 2007 India signed and ratified The United National Convention on the Rights of Persons with Disability (UNCRPD) which is an international document aimed at protecting the human rights and dignity of persons with a disability (PWD) (UNTC, n.d.). Consequently complying with the directions of UNCRPD, the process of enacting new legislation in the place of the Persons with Disabilities Act, 1995 (PWD Act, 1995) gained momentum and the Rights of PWD Act, 2016 (RPWD Act, 2016) was passed and notified on December 28, 2016. The Act

emphasizes on Equality and non-discrimination and directs the Government to ensure that the persons with disabilities enjoy the right to equality, life with dignity and respect for his or her integrity equally with others. It also directs to provide necessary support individualized or otherwise in environments that maximize academic and social development consistent with the goal of full inclusion. It also governs to ensure that the education to persons who are blind or deaf or both is imparted in the most appropriate languages and modes and means of communication. (Acts GOI, n.d.).

Technological advancements have offered many solutions to improve the learning experience of print disabled persons. However, for many, the assistive software/hardware facilities available at their reach are limited in many ways (Haneefa & C, 2014),(Soman & Sudhier, 2015),(Sanaman & Kumar, 2015). Libraries can play a significant role by facilitating fully accessible facilities and services, which will go a long way in helping them to lead a life at par with others in society. Hence, to make education inclusive, the educational institutions especially the government-funded institutions are legally

bound to provide necessary support individualized or otherwise in environments that maximize academic and social development consistent with the goal of full inclusion.

### **BRIEF PROFILE OF KNOWLEDGE RESOURCE CENTRE (KRC) :**

The Knowledge Resource Centre (KRC) of Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) was established in the year 1923 to cater to the academic and research needs of the faculty and students. Having more than 30 libraries in its fold, the KRC is accomplishing its task of reaching the wider academic community. The KRC has always been a pioneer in adopting new technology and is far ahead of many libraries of the region. As a central service facility of the university, the KRC is committed to the university's Mission Statement which reads "to provide greater access for higher education to all and in particular to the socially and educationally unprivileged youth upholding the principle of social equity". Currently, it has holdings of more than 4 lakhs of reference and textbooks, 200 + print journal titles, and about 15000 manuscripts. Apart from that KRC has a growing collection of multimedia and electronic resources. It also subscribes to many powerful databases, providing online access to thousands of full-text journals through e-Shodhsindhu consortium. The KRC has always been proactive in augmenting its physical and technological infrastructure following the ever- changing needs of its students, teachers, and other stakeholders. One example of such development is the one GBPS Link which has been installed in the campus KRC under NMEICT project of Govt. of India. It was commissioned in May 2011 by BSNL. Later, National Knowledge Network(NKN) was enabled on this link in 2011 only. NKN connectivity is available in both the Knowledge Resource Centre situated five

kilometers apart. The main KRC also has leased line as well as R.F. Link. The KRC has implemented RFID technology in its campus KRC. It has recently installed self-checkout Kiosk and Drop Box also. Three e-Resource Labs with more than 40 terminals at each lab have been established in the KRC at its two main locations (Main & Campus) to facilitate the users to access e-resources seamlessly.

### **OBJECTIVE OF THE STUDY :**

The objective of the study is to highlight the various facilities and services available at the Knowledge Resource Centre of Rashtrasant Tukadoji Maharaj Nagpur University to promote the facilities with a view to outreach the broadest demographic of users.

### **OVERVIEW OF FACILITIES AND SERVICES AT KRC:**

Technological solutions can enable persons with disabilities to live independently and succeed in life. Libraries can play a significant role in helping people with disabilities get access to information and services through various assistive reading devices and enable them to succeed in their academic activities. Hence through such technologies libraries can empower visually challenged users to access library services with greater independence and privacy and become self-reliant learners in accomplishing their academic and research pursuits. The purpose of this section is to illustrate the variety of assistive technology available at the Knowledge Resource Centre of Rashtrasant Tukadoji Maharaj Nagpur University which can meet the diverse needs of the users.

### **ASSISTIVE TECHNOLOGIES :**

Zoom Text Fusion Magnifier and Screen Reader  
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- Fusion is the ultimate accessibility tool for individuals with any level of vision impairment. Zoom Text Fusion is a combination of Zoom Text & JAWS which provides the best of both worlds.
- JAWS (Job Access with Speech) converts desktop computers, laptops, Tablet PCs even with Touch Screens into a talking computer enabling the person to operate the same independently. JAWS speaks in 7 Indian languages including English, Hindi, and 5 other languages.

#### Type Ability - Keyboard Learning Software

- A Talking Typing interactive tutorial compatible with JAWS Talking Software.
- 99 lessons for complete guidance & practice lessons for learning keyboarding skills & developing typing speed in a systematic manner, using all ten fingers like a touch typist.

#### J - Dictate Software - Typing with Voice Commands

- J-Dictate combines the excellence of JAWS screen-reading software for Windows with unparalleled voice recognition capabilities.
- This program is solely useful for dictation by voice. It also allows audio notes to synchronize back to the computer automatically using an app.

#### Hi-Speed Scanner with Open Book Reader with Hindi and Marathi OCR Software

- Hi-Speed Instant Scanner for scanning and reading of English printed text
- Hindi/Marathi OCR software converter to read printed textbooks, library books, magazines, journals, newspapers, etc.
- It is a light-weight portable camera device that connects to a PC or Laptop, uses a Motion Sensor enabling high speed scanning & instant reading the text in an Indian accent
- OCR Software is used with the support of JAWS enabling the blind students to read the

Marathi/Hindi textbooks scanned by the OCR scanning software.

#### Clear Reader+ Text Reading Machine

- The Clear Reader+ scans any documents, text, magazine articles and reads them in natural sounding voices.
- Easy to use controls for volume, speech rate. HDMI, USB port, and SD Card Slot provided

#### Desktop Video Magnifier

- It is useful for partial Blind / Low Vision persons for reading, books, magazines, journals, newspapers, etc. in magnified form for ease of viewing since it provides a wide range of magnification with the option for color contrast with a choice of 28 color contrast supplied with reading tray to support reading of large documents, hand-written notes, manuscripts, exam question papers, diagrams, graphics, blueprints, etc.

#### Talking Daisy Player Voice Recorder

- Provides easy navigation for Go to Page, Headings, with levels for chapters, sections, phrases as well as the beginning of a book, end of a book, time intervals, etc.
- Speaks both in English and Hindi

#### Index Basic-D V5 Embosser

- A high-speed, new generation technology braille unit for provision of multiple braille books of different titles in both English and Hindi languages.
- This system converts the E-book or digital text directly into Braille format and prepares the braille book simultaneously

#### Tactile View Design Creation Software

- Tactile View enables the creation of Graphics/diagrams easily with special tools provided for the production of Braille

Graphics/Diagrams like Maps, Graphs, for subjects like Geometry, Geography, Sciences, Maths, Computers, and layout plans, etc. using either an Index braille embosser or PIAF Image Maker.

- Supports creation of Graphics/Diagrams in different methods using the inbuilt modules such as Fresh drawings, use premade diagrams from TV catalogue, download from the Internet, Convert scanned or Webcam images, Create Tactile Maps, Graphs from Equation, Combine text with Diagrams.

#### **OTHER SERVICES :**

##### **Membership of Suganya Pustakalaya**

The KRC works as a facilitator in extending the membership of Suganya Pustakalaya – an online library for print-disabled readers. Here, users can access a collection of over 3,00,000 books on a variety of subjects as well as languages and can also download books in chosen formats. It is a one-stop resource for the reading requirements of all those persons who due to blindness, weak eyesight, or any other disability cannot read the standard print. By using the ID and password users can access the collection of the online library through remote login. Even they can access it in their mobile phone through an app named “Simply Reading”.

##### **Open to Non-registered persons**

All these facilities and services are not restricted to the registered KRC members of the university rather open to the general public.

#### **CONCLUSION :**

The role of the Knowledge Resources Centers in an academic setup is to support and enhance the teaching, learning, and research activities of the institution. However, the roles of KRCs of any government-funded university are not restricted within the boundaries of the institutions and goes beyond that. It is the social responsibility of the KRCs to take proactive

steps to support the rights of disabled people with regard to access to information. Reaching to the potential users and engaging with them is seen as the essential way to address their information needs. A strong positive organizational attitude towards people with disabilities in providing accessible services is crucial to the success of doing so. The KRC of RTMNU has designed a roadmap in identifying and removing barriers to ensure equal opportunities for disabled people. It is vital that access to services for all should be seen as their right and as an integral part of service planning and delivery. As marketing and outreach will help to ensure the KRC facilities are reaching the broadest demographic of users promotion of accessible services through multiple channels will be chalked out. The KRC will work collaboratively with organizations working for visually impaired people to ensure joint promotional opportunities and increased communication regarding accessible services available at the KRC. Training and development of supporting staff will be arranged to make them competent technically and to deal with the patrons with sensitivity in view to improve the accessible services. The overview of the existing facilities and services for patrons with disabilities in the Rashtrasant Tukadoji Maharaj Nagpur University KRC depicts the initiatives taken by the authorities truly justifies the mission of the University which reads “To provide greater access for higher education to all and in particular to the socially and educationally unprivileged youth upholding the principle of social equity”.

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