The Road to Digital Learning and Employment in India

CHALLENGE
There are 62 million people with visual impairments in India who are deprived of a solid education and job training because of the lack of accessible learning materials. In fact, less than one percent of printed materials in the developing world are in accessible formats suitable for use by blind and low vision individuals. This lack of access to books, knowledge, and content leads to dependence and limited opportunities to succeed.

Traditional education for blind students relies on braille; however, braille has many limitations. The supply of braille books is limited, especially in STEM (science, technology, engineering, and math) subject areas. The books are fragile, bulky, and expensive to produce, and distribution to remote areas is difficult. A shortage of teachers trained in braille limits the number of blind students who can learn braille. And finally, once blind students complete their specialized education, their ability to read and write only in braille excludes them from mainstream society and severely curtails their employment opportunities.

Many members of the blind community rely solely on braille and audiobooks for reading. Use of technology is typically limited to messaging using communications applications on Android phones. With the onset of the COVID-19 pandemic, blind persons had to embrace technology more fully in order to connect with others. The biggest obstacle was their lack of knowledge and skills regarding digital technology.

SOLUTION
When the COVID pandemic disrupted their usual activities, the Bookshare team, led by Dr. Homiyar Mobedji, quickly pivoted their approach to outreach and training. Although the team typically delivered in-person workshops to teach print-disabled persons how to download and read books via the online Bookshare library, they switched to online training with a focus on overall digital literacy. The team identified 100 blind groups on WhatsApp with 100-200 people in each group. They sent audio messages to these groups with information about basic digital skills, how to log in to Bookshare and Zoom, and upcoming training sessions. The demand for the weekly sessions increased significantly, and, since February, the team has reached over 15,000 attendees. The comprehensive program consists of an end-to-end solution encompassing content, devices, and training with the ultimate goal of preparing individuals for employment.

Impact Profile

Bookshare helps empower individuals with disabilities to stand on their own, fulfill expectations of society, and live a life of dignity. Unless you help a person to grow, just pointing him to a book is not sufficient.

—DR. HOMIYAR MOBEDJI, BOOKSHARE ASIA/AFRICA PROGRAM MANAGER
Content
The content portion introduces Bookshare, the world’s largest library of accessible ebooks for people with reading barriers. The collection has over 960,000 titles in 63 languages (including Hindi, Bengali, Marathi, Gujarati, Telugu, Tamil, Malayalam, and Kannada) in a range of subjects including state textbooks and STEM. Membership is free for persons with learning disabilities, visual impairments, or physical disabilities.

Devices
Bookshare partners with government and nonprofit organizations that often purchase or subsidize the cost of devices for users. Android phones are popular and affordable, while Apple iOS and Microsoft Windows devices such as tablets and computers are used less frequently. Some use DAISY players and refreshable braille displays to read.

Training
The training is delivered via Zoom, YouTube, and WhatsApp and focuses on: (1) basic digital literacy; (2) how to download Bookshare books and read on Android phones, iOS devices, and Windows computers; (3) how to write using an Android phone with an attachable, USB, mini-keyboard; and (4) how to become employable by acquiring certain skill sets. The training has been so successful that the team added two more help lines for a total of three to accommodate the demand. The help lines are open every day from 9:00 am-7:00 pm.

IMPACT
The Bookshare team is now considered an authority in India for persons with blindness. The team, working with nonprofit partners like EnAble India, is changing society’s perception of blind people as dependent and less skilled. Education alone is not sufficient to achieve employment, however; individuals also need technical training and skills to succeed in the workplace. The team proved that technology removes dependence on human readers and scribes, and it enables blind people to read and write in the digital realm, just like sighted people. Digital writing allows two-way communication with mainstream text, improves spelling and diction, and prepares visually impaired students for employment. The team did much more than bring books to the blind; they connected readers and built an inclusive, virtual community.

The program has already yielded some impressive success stories. Dr. Homiyar shared a list of sixteen visually impaired students who are now employed in a variety of roles including software engineers, network engineers, IT Service Managers, and HR Managers at companies like Microsoft, NOIDA, HCL Technologies, Wipro, Concentrix, and Google. The team recently launched a three-year project with ten blind schools in India to advance beyond centers of learning and become centers of digital literacy. The goal is to transform the entire ecosystem of blind schools so students can enter mainstream society upon graduation and be self-sufficient, contributing members of society.

Benetech is a nonprofit that empowers communities through software for social good. Our work transforms how people with disabilities read and learn, makes it safer for human rights defenders to pursue truth and justice, and connects people to the services they need to live and prosper. We’re constantly pursuing the next big social impact.