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Engaging partnerships: models of service I - Trinidad and Tobago

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Introduction

The presentation addresses how a national library system established a service for the visually impaired, which it plans to offer at its public libraries throughout the country.

Background

History of Trinidad and Tobago

Trinidad and Tobago is a twin island state (Trinidad 4,828 square kilometers, Tobago 300 square kilometers) with a population of 1.3m located at 10° 2' and 11° 12' N. Latitude and 60° 30' and 61° 56' W Longitude, off the coast of Venezuela. Its capital is the city of Port of Spain. Trinidad and Tobago gained Independence from Britain in 1962 after 165 years of British rule, preceded by Spanish administration from the date of Columbus' arrival in 1492.

Economy

Trinidad and Tobago has an energy based economy, with sugar and tourism playing minor roles in trade and with a growing manufacturing sector which is a major

supplier of goods and services to the other islands of the Caribbean. With a GDP of \$57,918.5TT and natural gas resources of 19.71cf, Trinidad and Tobago aims to achieve developed country status by 2020.

Services for the Blind

Education for the visually impaired in Trinidad and Tobago began in 1914 when an Institute for the Blind was established for the teaching of Braille writing and making of handicraft. Today there are three organizations which provide training for the visually impaired and one School for Blind Children. Prior to 2001, library services to this sector of the population, of which there are an estimated 12,000 persons, was limited to the provision of large print books.

The Project

The National Library and Information System Authority (NALIS) was established in 1998 *“to provide for the development and co-ordination of all library and information services in Trinidad and Tobago and related matters”*, the NALIS therefore administers the National Library of Trinidad and Tobago and also has responsibility for public, school and special library services. NALIS in carrying out one of the functions mandated by its enabling legislation *“to provide a national information service to the benefit of the physically disadvantaged and persons in institutions”* partnered with the Torres Foundation of the USA in 2001 to install the necessary hardware and software, and to train visually impaired persons in its use, at its regional headquarters in the city of San Fernando.

This partnership proved very successful and the experience gained through this project was used as a springboard for planning services at the new National Library Building, which was under construction. Discussion with and a visit to the Canadian National Institute for the Blind (CNID) also provided important information for the design and implementation of these services and the CNID proved to be an excellent source of information for the purchasing of the necessary equipment and Braille books, recorded books and descriptive videos.

The new building was opened to the public on March 26, 2003, and provides services to visually impaired persons (VIPs) in specially furnished and equipped rooms in the Children’s Library and in the Adult Lending and Reference Library.

Technology Solutions

These new services aim to provide the differently-abled with the easiest access possible to the library's services and resources. The services are mainly for the visually impaired, but also provide access for hearing and mobility impaired persons.

The VIP services are provided through assistive technology products, computer aids which enable differently abled persons to access information for development and leisure, thus attempting to achieve NALIS' vision of equitable access to information for all citizens of Trinidad and Tobago.

The specially designed and dedicated areas are equipped with -

JAWS for Windows (JFW), which is a software program that uses synthetic speech technology to verbalize screen output for computer users who are blind. The programme is multilingual and allows for information to be read in character, word, line, and full screen units depending on what is required by the user. Speech rate, pitch, volume and word pronunciation can all be configured to individual preferences. The Screen Reader primarily depends on the location of the active cursor to determine which information should be read.

Speech Synthesizers Screen Readers, which are used in conjunction with a speech synthesizer which is the device that actually does the talking. Software synthesizers enable the screen reader to utilize the computer's multimedia sound card to generate speech output. Hardware synthesizers are circuit boards or speech boxes that are connected to the computer. The JAWS software comes with a free software synthesizer called Eloquence.

Magic Screen Magnification Software, which enlarges text and graphics that appear on a computer display for persons with low vision. Magnification can range from twice regular size text, to 16 times regular size text. The program also provides a variety of viewing and cursor tracking options. These features enable users to customize the system to accommodate their particular low vision needs when reading the computer screen. The screen magnification software systems are relatively easy to learn and both the mouse and special keystrokes are used to operate the program.

Duxbury Braille Translation Software, which allows the user to produce professional Braille documents that are properly formatted in a variety of languages

and grades. Braille translators are needed because a Braille printer ignores the format specifications when it receives the print job directly from a commercial application. The Word document must first be translated by the Braille translation program and then sent to the Braille printer. Only then will the formats specified in Word be reflected in the Braille documents.

Focus 44 Braille Displays, which reproduce the information that appears on a computer screen, in Braille. The device is connected to the computer via USB, parallel, or serial cable and sits on a desk under the keyboard for easy reach. It produces in Braille what appears on the current line in focus of the computer screen. It is sometimes referred to as a refreshable Braille display because it is constantly updating to reflect the new information that has come into view. It can display up to a maximum of 80 characters which corresponds to the approximate length of a line on a computer screen. The Focus 44 allows for scrolling through information on the computer screen. It performs a similar function to the scroll bar in Windows.

Closed Circuit TV/Video Magnifier, which uses a stand-mounted or hand-held video camera to project a magnified image onto a video monitor or a television (TV) screen. It is a device that is used by people with low vision to read printed materials (i.e. textbooks, pictures, maps, etc.). It is also possible to use the device for writing checks or filling out applications.

Also available is stand-alone CCTV which sits on a desktop and comes with a moving table that is located under the video camera with zoom lenses. The user places the material to read on the table under the camera and uses the zoom feature of the camera to focus and magnify the document. The table can then be moved left, right, up and down as needed for reading. As the table is moved the text on the page scrolls across the screen in the magnification set by the user. Hand-held CCTVs are sufficiently flexible to allow the user to read just about any printed information in reach (i.e. medicine bottles, food containers, stereo control panels, etc.).

OCR Reading Systems, which enable the user to scan and read printed materials. The complete system includes a scanner, OCR software, and sound card with speakers. The reading material is first scanned into the computer. The OCR software then performs a recognition analysis on the scanned image. During this process information which cannot be identified (i.e. pictures, graphics, hand writing, etc.) is discarded. The remaining data is then formatted to specification and read, using synthetic speech. The

scanned document can be saved to disk and retrieved and read as needed. The stand-alone units do not require a computer and are considered easy to use since they do not require the user to have computing skills.

VersaPoint Duo Braille Embosser, which can Braille on both sides of a page. It also comes with synthetic speech for setup and configuration.

Dragon Naturally Speaking Professional Voice Recognition Software, which enables the user to interface with the computer hands-free. This technology is specially provided for use by persons with motor impairments which prevents them from typing on a keyboard. The software works with a microphone which connects to the sound card on the computer. Dragon needs to be first trained to understand the user's voice pattern and this information is kept on voice files on the computer. These files are continuously updated as the user works with the software to improve recognition.

Next Talk software which provides instant messaging capability for people who are deaf. It turns the personal computer into a machine which allows that person to call another user who has the Next Talk software. It is installed on the library's local area network which allows the user to communicate with the library staff.

Perkins Braille Writer, is a machine that is operated manually to produce embossed braille. It is the Braille equivalent to a manual typewriter.

APH Table Top Recorder, which is a 4-track tabletop recorder is used to play and record regular audio cassettes. This machine allows the user to increase the amount of information that can be recorded on an audio cassette by making it possible to record on 4 sides instead of just 2 sides.

Victor Pro is a digital talking book reader that copes with complex text books. Books are recorded in audio formation on CDs. In addition to the audio files the CDs also contain DAISY coding which provides information about the books structure. This allows the user to navigate through the book by page, chapter, phrase, etc.

The Collection

The NALIS is developing a collection of Braille and audio books. Its collection contains 280 Braille Books (Adult) and 321 Braille Books, 9 CDs, 43 Talking Books, 10 VHS Tapes (Children) and 503 books in large print. An aggressive

acquisition programme is in place to provide a comprehensive collection of books and materials in other formats at the main library and at libraries throughout Trinidad and Tobago.

NALIS plans to take advantage of the Library of Congress National Library Services for the Blind and Physically Handicapped programme, which supplies books on loan and on exchange to libraries around the world. Other avenues for accessing book donations will also be explored.

Services

NALIS offers loans and reference services to all its users. A registration form for VIP is available in Braille. NALIS' online catalogue works well with the JAWS software, our website is being redesigned www.nalis.gov.tt is underway to enable it to be read using the JAWS software.

Training

Staff

NALIS has provided training for its staff members at the National Library Building in the use of the hardware and software used to offer these services. Of these trained staff members, specially assigned persons, oversee the use of the services by the VIPs and train them in the use of the technologies.

Users

Continuing its partnership with the Torres Foundation, a training programme "Blind Independence Through Technology" is being continued at the San Fernando Library and will be introduced at the National Library Building in Port of Spain in June 2003. This training will equip the user to operate all the computer technologies provided for reading printed and audio materials. One level of the training will target individuals who only wish to read printed material and access audio materials. The more advanced level is designed to train users to be computer literate and to take full advantage of the more advanced features and functions of the reading technology. A Braille course designed to provide the user with the necessary skills for producing formatted Braille documents and using the Braille equipment will also be provided. Training in the use of the Internet is also being provided for VIPs.

All activities in the Children's library are designed to include visually impaired children. Children from the School for Blind Children can now participate in our Annual Reading Quiz Competition.

Other Partnerships

NALIS is also forming very valuable partnerships with corporate firms. One dedicated partner, The Republic Bank of Trinidad and Tobago will early in 2004 provide equipment, books and multimedia products to establish a centre for visually impaired persons to use information in our Heritage Library. This important library houses the reference collection of works on Trinidad and Tobago about Trinidad and Tobago and by Trinidad and Tobago nationals. This material is not available to the visually impaired user at present. The publication of Trinidad and Tobago literature in Braille is also being considered and funding is being sought to support his project. NALIS will also be exploring the possibility of volunteer reading of Trinidad and Tobago works into tape etc., within the framework of the Trinidad and Tobago Copyright Act.

NALIS is also partnering with the Blind Welfare Institute, the oldest organization working with VIPs in Trinidad and Tobago and which administers the School for Blind Children to assist in ensuring that textbooks are available in Braille.

NALIS will host the "Vision Awareness" month in October, 2003 in conjunction with another NGO - Persons Associated with Visual Impairment (PAVI).

Teachers and volunteer instructors will be targeted to reach and train visually impaired students who are in regular schools.

A concerted programme is being developed to link NALIS' services with NGOs and personal volunteers who can accompany blind users to the library, provide transportation, read for Braille and perform many other services which will enable VIPs to access these services.

These new services have attracted attention both locally and regionally. Members of the BarNOD (Barbados National Organization of Disabled) visited and enjoyed hands-on demonstrations in early April, 2003. Between March – June 2003 forty (43) groups visited and received demonstrations of the facilities for the Visually Impaired in the National Library Building.

The Future

In its Strategic Plan 2003 – 2008 NALIS proposes to –

- Install assistive technology and provide Braille and audio books in its new mobile libraries, which will serve rural areas by 2004.
- Empower VIPs through training programmes to work with these new services from 2004.
- Acquire digital talking books and equipment for loan, by 2005.
- Equip five (5) public libraries with assistive technology by 2006.
- Provide Braille and audio book collections at its twenty-five (25) public libraries by 2008.

NALIS is committed to ensuring that all differently-abled persons in Trinidad and Tobago can enjoy equity of access to information. One of the main strategies is to work more closely with international organizations and other national libraries to maximize its potential to deliver the highest quality of library service to visually impaired and differently abled persons.

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