Did you know that less than 5% of published work (less than 1% in poorer countries) and 20% of websites are not accessible to the Print Disabled community? (IFLA – International Federation of Library Associations and Institutions)

To give you a little background of myself. My name is Sue Jamieson and I hale from the beautiful Bay of Plenty, from Tauranga, but spent most of my adult life in the South Waikato.

My library career is that of school, public and special libraries beginning in primary school then onto Intermediate in Putaruru. From here I went into the public sector working for Waipa and South Waikato District Council Libraries. I was lucky enough to be sponsored to Library School by the then Putaruru Intermediate School. This was a fairly big commitment with 3 young daughters an extremely supportive husband and a busy farm life as well as total support from the school.

After stints at the Te Awamutu Public Library as a Senior Librarian, children’s/YA specialist and then managing the Putaruru Public Library, and with adult children, we decided in, 2002, to cross the ditch for a ‘seachange’ I contracted for a bit to libraries for schools in Melbourne and the Department of Human Services, but mainly to RMIT (Royal Melbourne Institute of Technology) Publishing where I was employed as an Indexer. This was a different take on traditional library work and I really enjoyed it. I had registered with One Umbrella and Zenith two agencies specialising in library placements and my placements came from both these companies.

One Umbrella offered me a temporary contract position as Cataloguing Team Leader for VAILS (Vision Australia Information Library Service) – not really as a cataloguer but to bring together a low functioning team. A cataloguer I am not! This position lengthened several times and then became permanent!

Little known to me but was name was seen by an existing VA staff member – our own Andrew Wright ‘The Shah of Blah’. Andy and I were in the same class at Library School and said ‘She’ll do’ after seeing my CV on the Collection Services Manager’s desk. We had kept in touch over the years, he had entertained the children of Putaruru Library on numerous occasions but we lost contact for a bit. Small world. He was the Technical Services Manager and as a sight impaired person was doing a lot of work around R&D.

As sidebar I had heard Andy’s first storytelling at Library School, a private session to our class and he blew us all away – he has done so very well nationally and internationally.

Back to VAILS – it was the very early days of DAISY (Digital Accessible Information SYstem) and I had no idea what this was or even seen a DAISY catalogue record or device. You learn fast when you have to! VA had just purchased 10,000 DSY records and audio files from RNIB (Royal National Institute for the Blind) in the UK and these imported records had to be adjusted to our standard on our Aurora LMS. We subsequently purchased all the RNIB catalogue. With a team of 5 of us we had just 2 months to complete this project alongside other duties. The pressure was on but needless to say we did it with time to spare and received high accolades from senior management. Now DAISY, as she became very affectionately named, had to be introduced to the print disabled community, no mean task for clients who were used to tapes and limited CD’s. Titles were also purchased from Bolinda, Chivers, Blackstone and negotiations with publishers were carried out to produce titles in VA studios with human narration. Narration is a long process where diction must be exact and accents can pose difficulties. I was lucky enough to experience this in narrating a children’s book. Most of our narrators though were professional actors.

To explain DAISY – anyone know much about it?

**DAISY** (**Digital Accessible Information SYstem**) is a [technical standard](http://en.wikipedia.org/wiki/Technical_standard) for digital [audiobooks](http://en.wikipedia.org/wiki/Audiobook), [periodicals](http://en.wikipedia.org/wiki/Periodicals) and computerized text. DAISY is designed to be a complete audio substitute for print material and is specifically designed for use by people with "print disabilities," including [blindness](http://en.wikipedia.org/wiki/Blindness), impaired vision, and [dyslexia](http://en.wikipedia.org/wiki/Dyslexia). The DAISY format has advanced features in addition to those of a traditional audio book. Users can search, place bookmarks, precisely navigate line by line, and regulate the speaking speed without distortion. DAISY also provides aurally accessible tables, references and additional information. As a result, DAISY allows visually impaired listeners to navigate something as complex as an [encyclopaedia](http://en.wikipedia.org/wiki/Encyclopedia) or [textbook](http://en.wikipedia.org/wiki/Textbook), otherwise impossible using conventional audio recordings.

DAISY multimedia can be a book, magazine, newspaper, journal, computerized text or a synchronized presentation of text and audio. It provides up to six "navigation levels" for content, including embedded objects such as images, graphics, and [Maths](http://en.wikipedia.org/wiki/MathML). DAISY 3 is a newer technology, and is standardized as [ANSI](http://en.wikipedia.org/wiki/American_National_Standards_Institute)/[NISO](http://en.wikipedia.org/wiki/National_Information_Standards_Organization) Z39.86-2005. The DAISY Consortium ([www.daisy.org](http://www.daisy.org)) was founded in 1996 and consists of international organizations committed to developing equitable access to information for people who have a print disability. The consortium was selected by the [National Information Standards Organization](http://en.wikipedia.org/wiki/National_Information_Standards_Organization) (NISO) as the official maintenance agency for the DAISY/NISO Standard.

DAISY books are contained on one CD, so there's no need to juggle multiple cassettes or CDA. The PTX DAISY desktop player, which is the one some of you will be most familiar with, when fully charged, will last up to five hours can store 999 books, comes with an optional carry case is lightweight and extremely robust. I remember co-presenting with my Manager at a VALA conference and he demonstrated this by dropping it from the height of the lectern! You can also use a USB or SD on this player**.** The player can play files in mp3 and in uncompressed audio. It has a speed button, which allows borrowers to speed up or slow down both synthetic and narrated voices, and a tone button, which allows them to adjust the pitch and depth of the sound to suit their own preferences. You can also use a DAISY audio book player without playing a physical CD, but you will need access to a computer to enable the books and documents to be transferred to the device. Once the documents have been transferred across, the unit can be used independently of the computer.

There are three types of DAISY books.

One is audio-only DAISY, which is the most common. This format provides minimal text content and a set of recordings that the reader hears when the book is played. Audio only is commonly used for recreational reading employing live human narration and more recently synthetic voice.

Text-only DAISY books have no audio recording but provide the text of the book itself. These books are read with either text-to-speech systems or Braille displays. Bookshare.org produces text-only DAISY books. Their chief advantage is their very small file size as compared to books with audio files.

The high end DAISY book is found in the full-text, full-audio DAISY book. In this kind of book both the text and the audio are present and can be synchronized so the reader can listen to human narration and hear the text-to-speech voice at will to determine spelling, punctuation, and other information that may not be clearly conveyed through the narrated audio. These books work in players that do not support text-only books.

That’s a very brief overview on what is DAISY.

Now back to the introduction of DAISY to the Print disabled community.

Now the promotion began – all senior staff were required to present at functions re the advantages of using DAISY. After 6 weeks my first demo was to the Macular Degeneration Society – a very humbling experience. My involvement with any print disabled person was negligible. I was still getting my head around the device and this was a pretty daunting experience. I have never to this day forgotten the two 90 year old ladies so excited about this new device and guiding their fingers around the buttons and them so enthusiastic about this new form of reading!

From there I was promoted to the position of Reader Services Manager – the library was split into 3 areas, Collection Services, Technical Services and Reader Services. Collections dealt with acquisitions, cataloguing and distribution, technical with R&M and R&D and Readers Services the client interface – the front end. RS dealt with the promotion and marketing of the library services hence my vast travel over Australia.

A little about VAIL’s. The library provides national library services to the print disabled community of both adult and children and covers vision impairment, dyslexia, acquired brain injury or any condition that prevents the person from holding or manipulating a book. This is different from The Blind Foundation in NZ that only provides to the person with a vision impairment and whose children’s services are provided by the Visual or Sensory Resource Centre BLINK (Blind & Low Vision network for Kids) and BLENNZ (Blind Education Network NZ) at Homai. VA is a postal service or a download service. Head office is based in Melbourne with a large office in Sydney where the Braille is stored. As you are probably aware one title of BRL, say a novel can take the form of 12-20 volumes and so the storage facility has to be huge. Many BRL titles are now being offered via download so this takes the pressure off.

The library provides books, magazines, podcasts and newspapers. Newspapers are sent by a direct feed from Fairfax etc. and are available for clients to read before the hard copy hits the streets or the letter boxes.

Mags and books can be received by download directly to the client’s device or by physical disc as in DSY.

Braille books are also provided by the library – for a child born blind or becoming blind at a young age it is vital they learn braille to understand the concept of reading the printed word. Really important for literacy as a whole.

The discs are sent out in special mailers returned by the due date and disposed of – they are recycled into roading material and car consoles to name a couple. It is cheaper to provide the material by burn on demand than reuse the discs that become very ‘used’ very quickly.

My new position saw me travelling all over Australia presenting about the VAILS service and promoting the devices, I attended conferences, expos, user meetings, an A&P show in Alice Springs and generally anywhere I could demonstrate the service. The show in Alice Springs was an amazing experience and I demonstrated services to many of the indigenous community – the children were amazing. Unfortunately no PD people but I established a close connection with the public library and they actively promoted the service to the schools and community organisations. I met amazing people, worked with many blind or VI colleagues. I was lucky enough to meet the Senior Australian of the Year for 2011, Ron McCallum, a legal academic in Sydney. He was chosen to promote our library, as he was a heavy user and had been all his life. It was for a promotional video for Qantas. He travelled widely and independently and came down to Melbourne for the shoot. I was lucky to be chosen as his meet and greeter and therefore a small part in the film.

Gerard Gossens, an employee of VA, blind since birth, competed up to the semi-final of Dancing with the Stars, climbed Mt Everest and competed in the Cairns to Brisbane race 5 times and competed in the Para Olympics Games 1996, 2000 and 2012. His philosophy ‘success is a journey, not a destination’.

Vision Australia has a range of services for the Print Disabled community across the nation.

Braille Books (UEB) Universal English Braille standard

Talking books - DSY

Newspapers and magazines

Podcasts

Braille Music (with its own transcribers)

Picture book collection with braille overlays for both blind parent or blind child

Transcription services for textbooks with tactile overlays for diagrams, maps globes, a service for students.

Small LP collection for the teen dyslexic

Bookclubs in different places across Australia

U3A (University of the Third Age)

Radio Station on site in Melbourne

Human narration with professional actors or synthetic voice

Feelix Library - Vision Australia’s Feelix Library provides young children who are blind or who have low vision with access to innovative story kits that provide a sensory experience.

National Simultaneous Storytime – Run in conjunction with the National Library during May

Burwood School – the original School for the Blind in Melbourne. Now closed, I had the experience of reopening the Library but due to funding the school had to be closed and children mainstreamed. The majority of students had multiple disabilities. Originally a residential school but then became a day school and had students visiting from mainstream school to integrate with the students.

InterLibrary Loans with public libraries for talking books.

VALA was established as the Victorian Association for Library Automation in 1978 in response to the emergence of automated library catalogues and other technologies that were revolutionising the industry at the time. First conference in 1981. I had the pleasure of co-presenting a paper with my manager to introduce DAISY

Quality Management System – AS/NZS ISO:9001;2008. The VA Library was QMS accredited due to the requirements of some funding providers and I was trained by SAI Global as a Lead Auditor to oversee audits to ensure the yearly certification was attained.

Bookshare - An Accessible Online Library for people with print disabilities. Bookshare offers the world’s largest collection of accessible titles. As a result, people of all ages, as well as schools and many organizations around the globe can access the books they need for school, work, career advancement, skill development and the simple love of reading in formats that work for them. Over 250,000 titles. A pay service, around $50 per annum and a one off set up fee $25?

i-access client service committee – 3 monthly meetings with client representatives from all states, SPELD and other interested parties. A fairly demanding bunch and all changes within the library from policy to day to day changes had to go through the committee. VA paid for all travel, accommodation, catering and provided minutes etc. in either BRL or audio.

WIPO – World Intellectual Property Organisation in 2008 The World Blind Union established a treaty for PD people looking at 3 things –

Globalisation, Information Revolution and Human rights.

At VAILS we worked closely with all VA departments to ensure the service was of the highest standard and in my role as the RS Manager I dealt with many complaints. One then realises the impact on the lives of the PD community and their total reliance on the service for their reading pleasure. All changes within the service whether large or small needed to be communicated in a timely manner through audio (DAISY or CDA) or BRL. This of course takes time to produce. Also not everyone used the online catalogue so putting messages on there did not have the 100% reach. MY NZ accent helped with many complaints as, as soon as it was detected it invariably led to ‘oh you’re from NZ I know Blah from Blah do you know him? Helped break the ice and get through the issues. I think in my years there, there was only one person who I could not placate and in the end we agreed to disagree.

R & D was huge as this department was always striving for a better and more efficient service to the client base. There was much talk re the writing of lexicons as I left as accents and sayings were proving difficult with the emergence and acceptance of synthetic voice.

VA also provided audio description at all events and this was amazing to listen to – a real art! And so important for inclusion and transparency.

VA was all about transparency!

As far as Melbourne and other Australian cities are concerned they are well set up for the VI community in tactile street markings, public buildings with BRL signage, traffic lights with audio etc. VA had its own guide dog facility and there was one other within the city.

My time at VAILS was an amazing experience, I learnt so much that I had not a clue about, became a semi-confident presenter and speaker and was very humbled by many of the successful people I met the length and breadth of Australia.

Coming back to NZ was hard but in 2012 it was time to return home and after an 8 month hiatus I was lucky enough to secure my current position after a couple of interviews with other schools. At my age I felt it would be harder.

Te Puke High School was opening a new Student Learning Centre in the second term of 2013 – it was to be the hub of the school and the incumbent librarian took the opportunity to retire as the focus was not a traditional library but a modern learning environment. The SLC houses the library, Careers, Gateway and the International Dept. It is open from 8.40 to 3.25 each school day and students are able to have their morning tea and lunch within the building.

My philosophy fell in line with that of TPHS in that the library should no longer be a quiet, shush environment and also my experience with the digital world was a bonus as they wanted to introduce e-books.

At Te Puke High School all support staff, if they are keen, have the opportunity to take on a Small Group similar to the Form Class. These are made up of all year students and are approximately 18 in number. These students stay with you for their school life so relationships are built and the group become a tight knit family. We meet daily for 20 minutes for pastoral sessions looking at school values, academic progress any issues students may have and also for fun sessions – shared lunches or fun activities. We also meet every two weeks for a full period where there may be House activities, assemblies etc. We as Small Group Leaders (SGL) are the significant other adult in the life of the student and the first point of call for the student, parent or other staff. At the beginning and end of each year we hold small group conferences (the old parent interviews). These are student led and are extra to the subject interviews which are held with the subject teachers. During these conferences all aspects of the student’s life is discussed.

Within my SG I have Miss J an 18 year old in her second year of Year 13. She is completely blind and has led a fairly sheltered life and so this year we are concentrating on her independence so she can face the world next year. She uses technology to assist her learning and social skills having an iphone, Mac computer, Braille note and brailler. Her week this year is one day with her teacher from BLENZ, at the moment they are working with a local primary school and she is brailling overlay for readers and picture books for a blind junior student in that school. Miss J is thoroughly enjoying working with this young student and sharing her knowledge and experiences.

The rest of her week is spent in ECE classes, hospitality with a TA and also at home learning to prepare healthy meals within her home. She also attends the gym on a daily basis with her TA to improve her health, fitness and general well-being. Her aim is to be accepted for Kickstart next year, a live in situation in Auckland attached to the Blind Foundation where she will learn and experience more to become independent. They are only choose 10 youth per year and her acceptance is not certain. At her IEP last week preparations were being made in case this did happen and plans are in place in regards to her O&M with buses and looking ahead to a flatting situation within a village set up for persons with disabilities. She needs to become a proficient cane user, a guide dog is not her choice.

Miss J has already experienced life aboard the Spirit of Adventure in the Inspiration voyage, painting balling, laser tag but still needs to be exposed to life. Her teacher aide is amazing taking her shopping, lunches out and a variety of other activities to ensure she is exposed and prepared for life as an independent adult. She is also having work experience with ECE centre, food bank and Trustpower

Miss J was surprised to hear of my background working with print disability in Melbourne and consequently we have become close as friends.

Within my SG I also have one student who is mildly dyslexic and has a reader writer for exams and over uses his phone which is really supposed to be his calendar and reminder but sadly it has taken over his life. Like many youth but he can apply himself but chooses to take this route with a mum who back him and dad that does not.

Now back to the technology side of my knowledge and experience.

There are many options available for persons with a print disability ranging from devices to software to be used on PC’s or laptops.

Some of the device options available are:-

Plextalk PTX1 and Victor Reader desktop, Victor Reader Stream and Booksense

**Olympus DM-5** The DM-5 is a state-of-the-art voice recorder.  
CD-quality multi-format playback and recording, combined with sophisticated features like Voice Guidance, Voice Commands, Text to Speech and DAISY 2.02 to make DM-5 the choice for discerning users. (Available from Vision Australia’s Equipment Solutions)

A selection of note takers are:-

BrailleSense and VoiceSense (Available from Pacific Vision)

BrailleNote and VoiceNote (No Braille display), and the Classmate Reader (No Braille) (Available from Humanware)

You can also access DAISY audio books through your iPod Touch, iPhone or iPad. To do this you need to download an app.

If you have a Mac or Windows computer you can use DAISY playback software to access audio books.

Some free examples of DAISY playback software include:

Olearia for Mac computer

Amis for Windows computer

Daisy 2.02 for Android

Some examples of commercial DAISY playback software products include:

Read2Go for iPad, iPhone & iPod Touch

Darwin Reader for Android devices

Easyreader for Windows computer

**Braille Technology**

Technology is available to enable access to a computer via braille or to produce braille. The three main categories of braille technology described here are:

**Braille embossers**

Braille embossers print braille output from a computer by punching dots onto paper. They connect to the computer in the same way as regular printers. There are both personal and commercial embossers available on the market.

Before purchasing an embosser it is important to decide how it will be used, how often, how many pages need to be produced and so on.

Features which distinguish the different embosser models include speed, ease of operation, and quality of the braille, single or continuous paper feed, sideways printing and braille graphics.

Embossing is very noisy, so consideration should be made if the embosser is to be located in a busy area.

Prices start from $2995.

**Braille translation software**

To produce correctly formatted and coded braille on a braille embosser you will need Braille Translation Software. A document prepared by a word processing program is loaded into the translation software and can be edited if necessary. The resulting braille document is then sent to the embosser to produce a hard copy in braille. Such software can produce either uncontracted or contracted braille.

The choice of which translation software to use with a braille embosser will depend upon whether you can read braille or not, and the nature of the material you wish to emboss.

Basic translation software can be very accurate for everyday printed material, but may not be suitable if specialist characters or layout are needed such as for mathematical, scientific or music notation.

Demonstration versions of braille translation software and information on braille embossers can be downloaded from the Internet.

Prices start from $300.

**Electronic or refreshable Braille displays**

An Electronic Braille Display (refreshable braille display) is a tactile device which can be attached to a computer or connected via Bluetooth to some smartphones, and enables the user to read the contents of the screen using braille.

They can consist most commonly of 12, 20, 32 and 40 or 80 braille cells. Each cell has 6 or 8 nylon pins which are electronically controlled to move up and down to display a braille version of the characters that appear on the computer or smartphone screen.

To gain full access to programs using a braille display on a PC you also need to purchase a screen reading program which supports the braille display. There are a number of screen readers on the market which can do this.

Refreshable Braille Displays can also be used with laptops. The 20 and 40 cell displays are frequently used with laptops and are battery as well as mains powered.

As of January 2013 prices range from around $1,750 to $8,500.

An example of suppliers Quantum Technology, Optek Systems and Humanware

# **Accessing print when magnification doesn't help**

Print scanners use a scanner (similar to a photocopier), on which you place the material to be read. The scanner then transfers the document you have scanned to the print scanning software (also known as Optical Character Recognition or OCR software).

This software then translates the scanned information into text. A voice synthesizer (or screen reader) then reads out the text provided. Print scanners are available as a system which plugs into a computer, or as a stand alone reading machine.

Print scanners are not able to read handwriting. They also have trouble with newspapers, graphics, photographs, maps, multi-coloured brochures or poor quality faxes or photocopies. They are however, very useful for novels, newsletters, bills and bank statements or other documents.

It is also possible for a person to use a standard Windows based print scanning software with an appropriate Windows screen reader, screen magnifier, or braille display. This option is often cheaper but may not be suitable for everyone.

Before purchasing a print scanning system, try using it with some of the print material you wish to access to make sure that it can be read. Demonstration versions of print scanning software can be downloaded from the Internet.  
Prices from $900.

## Features to look out for when choosing a mobile phone

Below is a list of features to look out for in phones available from the various mobile phone dealers which will make them easier to use for some who is blind or has low vision.

### Keypad buttons

* Buttons that make a noise when pressed.
* Buttons that are large and can be felt individually. Look for buttons that are large, well-spaced and are raised, i.e. not flush with the surface. A tactile marker on the number 5 button is also helpful.
* Buttons that light up to enhance contrast.
* People with low vision will benefit from buttons with good contrast and clear print.

### Screen

* Most screens are colour these days. They allow you to adjust the brightness and other display settings like colour schemes to improve contrast.
* Large print fonts are available in some phones.

## Common screen readers

Please note - besides VoiceOver for the Mac, all other screen readers listed are for Microsoft Windows.

JAWS and Window Eyes screen readers are highly recommended for workplace environments. However, for home and education, both VoiceOver,System Access and NVDA may be appropriate.

All screen readers have limitations and it is important to consult with technology specialists to work out the best solution.

Prices from $600 (not the systems marked as free).

**VoiceOver for Mac OS X v10.5 Leopard**, free (built-in to the operating system)  
**Non Visual Desktop Access (NVDA)**, free.  **System Access**.

**Window-Eyes**.  
**JAWS for Windows**.

**Dyslexia**

I did work with the Victorian branch of SPELD to produce a set of LP books and also presented at parent evenings.

Hints to make easier reading:

Cream paper

12pt-14pt

Font Arial

Matt paper

Avoid capitals

Heavy paper so not see through

Lines 60 – 70 Characters

Large print

Barringtstoke have a good range of this material

Within NZ I have come across the Radio Reading Service that supply a services to the Levin, Manawatu and Horowhenua area using volunteers.

In conclusion I would like to say the last ten years has been interesting and something I never dreamed of – a great learning and growing experience and I acknowledge all that contributed and enriched my life.

Thanks for listening and I hope I have given you a little insight into my recent life and the facilities and opportunities available to the print disabled community.