

**APPENDIX B**  
**Glossary of Terms Related to**  
**Adaptive Technology and Services**

*Vision*

**Abacus**

A manual aid for performing basic numerical computations, consisting of a frame set with rods on which balls or beads are moved. Proficient users can become very speedy in using it to make arithmetic calculations.

**Abridged, Contracted or Grade II Braille**

The words and text are contracted or abridged in order to increase reading speed and to reduce the space required for transcription.

**Adaptive Technology**

Adaptive technology describes the use of hardware and software to assist individuals who have difficulty accessing information systems using conventional methods. (Increasingly referred to as "enabling technologies" or "assistive technology".)

**Alternate Format**

Print material is made accessible to persons with visual and learning disabilities through alternate methods: Braille, large print, audio taped, and electronic format.

**Alternate Format Provider**

Agency which translates information into a variety of accessible formats including Braille, large print, ASCII text or audio cassette.

**Braille**

A notational tactile system for representing letters, numbers and punctuation signs in patterns of raised dots, which can be read by the use of fingertips.

**Brailier**

A mechanical device to write Braille on paper, such as a Perkins Brailier.

**Braille Note Taker**

Electronic hardware that allows input via a Braille-style keyboard. Portable note takers are useful for taking notes in meetings, etc., and can be connected to a computer to print notes taken.

**Braille Printer (Embosser)**

A printer that creates Braille (tactile dots on paper) instead of text. Examples of product names: **Braille Blazer Embosser** by Blazie Engineering Ltd, **Romeo RB-25 & Romeo Classic Embossers** by Enabling Technologies, **Mountbatten Brailier** by HumanWare Inc.

### **Calculator with Enlarged Display**

The enlarged display scientific calculator provides bright red ½ inch-high digits, making viewing easier.

### **Closed Circuit Television (CCTV)**

Closed circuit televisions (CCTV) are a video magnification system consisting of a video screen interfaced with a video camera. This technology produces major advances for people with low vision. The stand-mounted CCTVs can be configured with either television receivers, video monitors, or computer monitors. The CCTV system provides high contrast, inverse video display, gray scale, and control of contrast level and brightness. Examples of product names: **Telesensory, SmartView.**

### **External / Portable Voice Synthesizer**

A portable voice synthesizer that can be transported easily so that a user can easily connect to another personal computer, for example, when traveling on business. (Voice synthesizers convert text or other electronic information to audible spoken language.) Examples of product names: **DECTalk Express Speech Synthesizer, TransPort Classic, Double Talk LT** by Blazie Engineering Inc.

### **Four-Track Tape Recorder**

A tape recorder that plays 2- and 4-track cassette tapes may allow for adjustment of playback speed.

### **Franklin Dictionary ("Franklin Speller")**

A "talking dictionary" with simultaneous visual display of the definition, syllabification and part of speech for each word. Useful for persons who are blind or partial sighted or who have learning disabilities. Product name: **The Speaking Language Master™** Special Edition, available from Franklin.

### **Haptic Device**

A haptic interface is a device that allows a user to interact with a computer by receiving tactile feed back. There are two main types of haptic devices: 1) a glove or pen-type devices that allow the user to "touch" and manipulate 3-dimensional virtual objects; and 2) devices that allow users to "feel" textures of 2-dimensional objects with a pen or mouse-type interface. Examples of product names: **The Phantom** from SensAble Technologies, **CyberGrasp**, or **Screen Rover** from Betacom Technologies.

### **Intervenor for the Deaf-Blind**

Can provide for simultaneous interpretation as well as other communication and related information for a person who is deaf-blind. Depending on what works best for the individual, intervenors may use visual sign language, tactile sign language, tactile finger spelling, Braille or large-print notes (for those with some vision).

### **Large Format Keyboard**

Keyboards that have keys that are larger than those found on standard keyboards. They help people who have trouble either pressing the keys or seeing the letters on a standard keyboard.

### **Large Print**

Letters or numbers magnified about 150 per cent or more by various means, such as a photocopier or word processor. A font of 16- or 18-point is commonly used but the font may be much larger, depending on the requirement of the individual.

### **Large Print (Software)**

Software that makes certain parts (or all) of the computer screen large, up to 16x larger than normal. It turns the pointer/cursor into a tool that simulates the action of putting a magnifying glass over a printed page.

### **Large Screen Monitor**

Monitors over 19" that assist persons with low vision to see the screen.

### **Magnifying Lens**

Hand-held tool that gives an enlarged view of what is below it.

### **Optical Character Recognition (OCR) Software**

Optical character recognition (OCR) is the process of converting an image of text, such as a scanned paper document or electronic fax file, into computer-editable text. The text in an image is not editable: the letters are made of tiny dots (pixels) that together form a picture of text. During OCR, the software analyzes an image and converts the pictures of the characters to editable text based on the patterns of the pixels in the image. After OCR, you can export the converted text and use it with a variety of word-processing, page layout, and spreadsheet applications. OCR also enables screen readers and refreshable Braille displays to read the text contained in images. Examples of product names: **Kurzweil 1000** (for blind and visually impaired users), **Kurzweil 3000** (for LD & ADHD users), **Open Book – Ruby Edition** from Arkenstone Inc., **Reading Edge** from TeleSensory Inc., or **OmniPage Pro 10** from Scan Soft.

### **Personal Data Assistant**

Personal Data Assistants (PDA's) are portable computers that are designed to act as organizers, note takers and/or communication devices. There are also a group of PDA's that are designed to be used by users with disabilities. These PDA's use aural output, Braille displays and Braille keyboards to comprise their user interface. Examples of product names: **Braille Lite** and **Braille 'n Speak** from Blazie Engineering, **BrailleMate** from TeleSensory Inc., **The Road Runner** by Ostrich Software, or **Voice Diary**.

### **Portable Note Taker**

An electronic device that allows notes to be taken in Braille. The device can be linked to a computer in order to print the recorded information.

### **Reader**

A task of a reader is to read written text to the candidate who is blind or has low vision, or who has visual processing impairment. This includes reading the response alternatives for a test using multiple choice format. The person selected as a reader should be someone who reads well and articulates clearly. It is useful to familiarize the reader with the test procedures and terminology used in the test material beforehand, especially if the test is of a technical nature.

### **Refreshable Braille Displays**

Refreshable Braille Displays are electronic devices that are used to read text that a computer sends to the monitor. The device produces Braille output on the Braille display. Refreshable Braille displays read only one line of text at a time. Examples of product names: **Aroga** from Blazie Engineering, **Power Braille Displays**, **Braille Window Display**, or **ALVA** by HumanWare.

**Scanner**

A device that can read text or illustrations printed on paper and translate the information into a form the computer can use. Optical scanners do not distinguish text from illustrations; they represent all images as bit maps. To edit text read by an optical scanner, an optical character recognition (OCR) system is necessary to translate the image into ASCII characters. Most optical scanners come with OCR packages.

**Screen Magnification**

Screen magnification software helps visually impaired persons to use computers by enlarging the picture on the screen by any factor they choose. Some programs enlarge the entire screen while others only enlarge the area around the mouse, producing a moving enlargement area. Features may include screen enlargement, mouse design and size, and colour contrast control. Examples of product names: **Large Print for Windows** by Visionware Software, **MAGic Screen Magnification** from Henter-Joyce, or **Zoom Text Xtra** from AI Squared.

**Screen Reader**

Also called **Voice Output Technology**. Hardware and software produce synthesized voice output for text displayed on the computer screen, as well as for keystrokes entered on the keyboard. Examples of product names: **JAWS for Windows** by Henter-Joyce Inc., **OutSpoken for Macintosh** from ALVA Access Group Inc., **Screen Reader 2** by IBM.

**Scribe**

A person who writes from dictation or sign language interpretation.

**Simple or Grade I Braille**

The printed text is transcribed into patterns of dots letter-for-letter.

**Speaking Clocks or Watches**

Clocks or watches with audio output.

**Spell and Grammar Check**

Software feature found in most word processing applications such as Microsoft Word or Word Perfect that allows user to check and correct spelling and grammar errors.

**Tactile Imaging**

Production of raised line / raised dot images that can be felt and interpreted by non-sighted users.

**Talking Calculator**

A calculator which performs standard mathematical functions and presents the information through voice.

**Text-to-Braille Translator (Software)**

Converts text to Braille format so that it may be stored, printed out or sent to a tactile based display. Most translators also show a visual display of the dots on the screen. Most programs allow translation to Grade 1, Grade 2, or both Braille derivatives.

### **Text-to-Speech Systems**

Text-to-Speech systems can convert words from a computer document (e.g., word processor document, web page) into audible speech spoken through the computer speaker. This would aid persons who cannot see or read text on a computer. Examples: **Clip&Talk 1.0 for Windows 3.x or 95**, **DECtalk**, **Help Read**, **Read Please 2000**, **The Road Runner**, **TextHelp** by Text Help Systems, or the **Reading Pen** by Seiko Instruments USA.

### **Versa Braille**

A brand name of an electronic Braille note taker which forms Braille letters without using paper.

### **Voice Recognition System**

Voice Recognition is a technology which allows a user to use his/her voice as an input device. Voice recognition may be used to dictate text into the computer or to give commands to the computer (such as opening application programs, pulling down menus, or saving work).

While the accuracy of voice recognition has improved over the past few years, the system is not yet perfected and works only in restricted circumstances for selected users.

Examples: **Dragon Dictate**, **Naturally Speaking** from Dragon Systems, **Freespeech** by Philips, **Via Voice** from IBM, **Voice Pilot for Windows**, or **Dragon Naturally Mobile**.

### **Voice Synthesizer**

A speech (or voice) synthesizer is software that converts a textual information encoded by a screen-reader into oral reproduction. Under control of the screen-reader software, voice-synthesizers can vary the rate, pitch, volume and language of the information

### **Webpage Reading Software**

Software that translates visual information such as text and explanations of graphics to audio format. The signal is converted and sent to a speech synthesizer that speaks the text through the computer's speakers.