

INFORMATION TECHNOLOGY FOR PEOPLE WITH VISUAL IMPAIRMENT

Supportive technology

St Barnabas School
for the Blind

Christina Eliadou



Christina Eliadou

ST BARNABAS SCHOOL FOR THE BLIND

IT DEPARTMENT

Training of Students and Adults

Technical support for integrated students and adults

Technical support of the Transcription Services Department
of the school

TRAINING PROGRAMMES

- × Adults & children
- × All ages
- × All kind of visual impairment
- × Visual Impairment
- × Age
- × Individual needs
- × Abilities
- × Interests

Technology and Equipment

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graph TD; A[Technology and Equipment] --> B[Mobility and Everyday living]; A --> C[Access to technology itself (use of computers)]; A --> D[Access to reading material And information];
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Mobility and Everyday living

**Access to technology itself
(use of computers)**

**Access to reading material
And information**



Mobility and Everyday living

Digital compasses with voice



Colour sensors

Accessible GPS Christina Eliadou



**NO RESIDUAL
VISION**

Computers

Accessibility Software

Screen Readers

- ✗ Accessibility Software
- ✗ Synthetic Voices
- ✗ Reads the focus on the computer screen
- ✗ Supports the use of various types of Braille Displays
- ✗ Variety of functions to facilitate screen navigation
- ✗ Can be installed on any computer

Braille display

- ✗ Connected to the computer
- ✗ Works via screen readers, such as Supernova Reader or Jaws
- ✗ Provides the screen focus in Braille
- ✗ Accurate feedback
- ✗ Keep in touch with the surroundings



Braille display

- × Different number of cells
- × Different sizes
- × Functions
- × For phones, palm pc's and other devices



Access to the Internet

- × Information- websites
- × E-mail
- × Chat (Windows Messenger, Skype...)
- × Social Networks
- × Share material



Access on Reading Material

- ×E-Books (Docs, Text, PDF, HTML...)
- ×Audio Books (mp3, DAISY)

Develop Reading Material

- ×Audio Books (mp3, DAISY)
- ×Printed Braille

Audio books

- × Special Software or Hardware
- × Synthetic Voices
- × Digital texts (doc, txt, rtf, pdf, html...)
- × AudioFiles (mp3, DAISY)
- × Record audio



Printed Braille

- × Braille Translation Software (Winbraille, Duxbury)
- × Braille Embosser
- × Document files



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Scanner-Computer-OCR

- ✗ Scan
- ✗ Read
- ✗ Transfer

- Computer Skills
- Time Consuming

- No special equipment



- ✓ Screen Reader
- ✓ Braille Translator

Camera-Computer-Software

- × Snap Shot
- × Recognized
- × Read

Computer Skills

Faster

Portable



Scanning And Reading Machines

- × Simple to use
- × Greek Menu
- × Greek Voices
- × Additional Functions

Read with the
push of a button



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Other Reading Machines



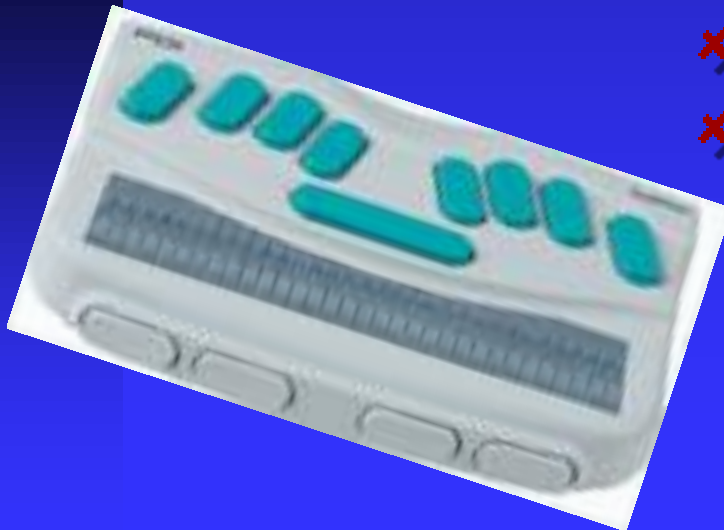
- ×Faster
- ×Simple to use
- ×Greek Menu
- ×Greek Voices
- ×Additional Functions



Braille Computers and Notetakers



- × Portable
- × Synchronized with a computer
- × Braille input-output
- × Speech
- × QWERTY keyboard
- × Wi-Fi
- × Ethernet
- × Bluetooth





LOW VISION

Computers

Accessibility Software

Screen magnifiers

- ✗ Used with larger screens
- ✗ Different magnification modes
- ✗ Other functions (colour inversion)
- ✗ Combination with screen readers
- ✗ Combination with CCTVs



CCTV

Close Circuit Television

- ✗ Small video camera
- ✗ Combination of lenses
- ✗ Enlarged image
- ✗ Embedded or external screen
- ✗ Simple to use
- ✗ Can be used also for writing





CCTV

- × Different sizes
- × Different functions



CCTV with long distance view

- ✗ Popular with students
- ✗ Portable
- ✗ Laptop, Desktop, Screen
- ✗ Easy to use
- ✗ Snap shot, video record



CCTV with screen reading

- ✗ Basic CCTV features
- ✗ Text selection on the screen
- ✗ Line/column reading mode
- ✗ Letter-word-line option
- ✗ Synthetic speech reading
- ✗ Touch screen selection
- ✗ Touch screen voice on/off



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Thank you