

## Making Digital NHS More Accessible with Assistive Technology

NHS services users are increasingly expected to go online to obtain health & lifestyle information, book GP appointments, access electronic health records and e-referrals. However, people with certain disabilities, impairments and challenges can find it particularly difficult to use digital health services - for example those with:

- Neurodiversity such as dyslexia and learning disabilities
- Cognitive disabilities - conditions such as Attention Deficit Disorder, Autism
- Cognitive decline - such as dementia and conditions affecting memory
- Sensory impairments such as vision decline, visual stress, eye fatigue
- Low Literacy skills
- Poor digital skills
- English language challenges, including refugees and migrants.

Assistive Technology can be one solution to help level the playing field, empowering users to access digital information and services confidently and independently. There are many different types of assistive software. The following table looks at some of the features offered by assistive software and the role it can play helping people with conditions as described above, to access digital health services and information.

Feature	What it does:	Improves accessibility for those with:
Text-to-speech	Online text is read aloud. Users can often tailor reading speeds, voices and accents to suit their needs. Some software highlights words as they are spoken to enhance the reader's comprehension. Allows users to access text in audio format, supporting easier processing of information.	Dyslexia and print disabilities, learning disabilities, cognitive disabilities/decline, mild visual impairments, auditory learners, low literacy, English as a second language
Dictionaries, including audio and picture dictionaries	Helps users to quickly look up the meaning of a word to improve their understanding. Audio dictionaries will read the word and it's meaning out loud. Picture dictionary can be used to assist with communication via picture images, to overcome language difficulties and reinforce understanding	Dyslexia, English language challenges, cognitive disabilities/decline, and any conditions which affect short term working memory. Picture dictionaries are highly effective for communicating with children.
Screen shot reader	Inaccessible formats such as PDFs and text embedded into images online can be turned into accessible format, meaning user can have text read aloud, and use other features such as screen masking/tinging and MP3	Learning and cognitive disabilities, visual impairments, dyslexia, English language challenges, low literacy.

	maker.	
Screen masking & tinting	The screen can be tinted in a range of colours reducing glare and making text easier to read. Some softwares can cater to specific prescription colours. Screen masking provides a useful screen ruler to help users remain focused on the text they are reading. It also masks on-screen peripheral distractions.	Specifically helps people with Irlen Syndrome (also referred to at times as Meares-Irlen Syndrome, Scotopic Sensitivity Syndrome, and Visual Stress) and other perceptual processing disorders. Also light sensitivity, OCD, ADHD, dyslexia and other learning disabilities.
Web page simplifier	Simplifies web page content, removing peripheral clutter and images, helping the user focus specifically on what they want to read without their attention being diverted	Dyslexia, learning disabilities, cognitive disabilities such as ADD and ADHD.
Audio/MP3 maker	Digital text can be instantly converted into audio format for easy listening. Text can be saved to MP3 file, enabling user to listen to text on a smartphone and other devices whenever and wherever they chooses. Removes the need for time-consuming and costly CD creation.	Visual impairments or loss, Dyslexia & print disabilities, low literacy, learning disabilities, cognitive disabilities, auditory learners, English as a second language
Translation tools	Translates digital text into different languages, in audio and/or text format to aid comprehension of health information.	English as a second language
Text magnifier	Increases the size of text on screen	Mild visual impairments, including age-related, also eye fatigue/stress.
Text highlighter	Highlights each word being read aloud, to aid audio comprehension with visual reinforcement. Text colours can often be tailored to suit user's preferences, including specific prescription colours.	Dyslexia, learning and cognitive disabilities, English language challenges, low literacy.

Assistive technology has a role to play in helping ensure a digital NHS is one which everyone can access. For more information contact [corporate@texthelp.com](mailto:corporate@texthelp.com)