

ASSISTIVE TECHNOLOGY

Assistive technology describes specialist hardware and software, which has been designed to improve the ability of the user to perform a task. In an academic setting, assistive technology can support a range of learning styles, abilities and difficulties and enables students to better able meet study requirements. This can result in more confident, independent learning during and after university and ultimately result in better academic output.

Assistive software can support a range of disabilities. The types of software typically used by students include, text to speech software, voice to text software, reading and writing tools, scanning and reading software, screen readers, screen magnification and mind mapping software. Hardware may include, ergonomic keyboards, large monitors (to support magnification), scanners, recording devices, adjustable desks and ergonomic furniture. This is a dynamic field, which is ever changing, with advances being made constantly.

How can I access Assistive technology?

Funded support

Most UK students in Higher Education with a disability are eligible for Disabled Students' Allowance (DSA) funded by their education authority of funding body and often are recommended assistive technology. Republic of Ireland students can apply to the Fund for Students with Disabilities (FSD) for equivalent support. For those students who are not eligible, the Disability Service does have a range of loan equipment. Further information can be found at the following websites or from Disability Services:

[Student Finance Northern Ireland](#) [Student Award Agencies Scotland](#)
[Student Finance England](#) [Student Finance Wales](#)
[Republic of Ireland Fund for Students with Disabilities](#)

On campus support

The University has available some assistive hardware and software in its Student Computing Centres, to support accessibility to learning. The university also has site licences for text-to-speech software, Read and Write Gold, mathematical software EquatIO and mind mapping software, Mindview.

- Read & Write GOLD is a literacy support tool designed to assists users when reading or composing text. Functions include reading text aloud, phonetic spell checker, word prediction, speaking dictionary and a scanning facility. It is a widely used and useful package for dyslexic students. More information can be found at the [Texthelp higher education webpage](#). To access support for use of student focussed support features of the software, visit the [Texthelp coffee cup webinars](#) .

- EquatIO software allows students to create mathematical equations and formulae directly onto their computer, by typing, handwriting or dictating the material. More information and a free trial can be accessed via the [Equatio website](#).
- Mindview software is a mind mapping software that allows users to brainstorming and present ideas visually. This software supports organising and developing ideas as well as being a good study aid. Free trials are often found on the [Mindview homepage](#).

The library also provides support for students with disabilities, which includes access to a wider range of assistive software and hardware. Click the following link to find out more about the QUB [library assistive technology and equipment](#).

In addition to the software described above, also available in the library is voice recognition software (Dragon Naturally speaking) that turns speech into text. This enable individuals with dyslexia, visual impairment or manual dexterity difficulties to dictate a document to the computer via a microphone headset, as an alternative to using the keyboard and mouse. More information can be found on the [Dragon homepage](#).

Students can also access:

- **Zoom Text Magnifier/Reader.** This allows users with a visual impairment to access a PC through screen magnification and voice synthesizer feedback. The software enables users to see and hear what they are doing in all PC applications; Zoom Text is able to read documents, web pages and email - which the user is able to listen to using headphones or the computer's speakers.
- **JAWS.** This is the most popular screen reader in the visually impaired community. It allows text-to-speech and full keyboard compatibility. JAWS also enables voice operated access to computer functions.

The McClay Library also has:

- **A Zoom-ex scanner,** which allows individuals to convert printed text to accessible formats and can magnify and read text aloud.
- **A desktop CCTV text magnifier**
- **Height adjustable desks**
- **Ergonomic roller ball mouse**

Free assistive technology and apps

There is a wide range of free assistive technology available. Apple and Microsoft platforms also have inbuilt accessibility tools including reading text aloud, dictation (voice to text) and text magnification. For more information, follow the links below:

Microsoft: <https://www.microsoft.com/en-gb/Accessibility/windows>
<https://www.microsoft.com/en-us/accessibility>

Apple: <https://www.apple.com/uk/accessibility/mac/>

Text-to-speech

Microsoft Lens allows the user to capture text, such as whiteboard information and input this into other applications. This is a free app available on both Android and IOS platforms.

Voice dream is an accessible text-to-speech software for Apple devices.

Balabolka and Natural readers are a couple of examples of free text-to-speech software.

Voice recognition

Microsoft and Apple operate in-built voice recognition applications, Speech Recognition and Apple Dictation. More information can be found on the Microsoft accessibility and Apple accessibility sites.

Mind Mapping

Free Mind is a free mind mapping tool.

Notetaking

Evernote notetaking app can support students to keep more organised notes. Smartphones can also be used as a dictaphone to record lectures.

Writing

Grammarly writing and proofreading tool

Vision

The free NVDA screen reading application supported by NV Access allows blind and vision impaired people to access and interact with the Windows operating system and many third party applications.

The Taptapsee app can take a picture and identify it out loud for the user.

In addition, Windows OS lens and Mac ZOOM are also of support to vision impaired learners.

Hearing

The Voxsci app converts voice messages to text for the user.

Referencing

Easybib

Cite this for me

Maths

Mathway Maths support