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Assistive technology helps the blind

By Tengku Zarith Sofia - May 31, 2022 @ 8:49pm

People who are blind or visually impaired can use phones, computers, and other electronic gadgets just as much as those who can see. - NSTP/AMIRUDIN SAHIB

KUALA LUMPUR: People who are blind or visually impaired can use phones, computers, and other electronic gadgets just as much as those who can see.

They use these technologies in a different manner via the assistive technology (AT), including screen readers, modern electronic braille, digital screen magnification and a lot of software applications to interact and gain information.

A participant of the the National Council for the Blind Malaysia (NCBM)'s Digital Access training (DAT) Kaveithran Puulanthran said AT would involve any item, piece of equipment, software programme, or product system that could increase, maintain, or improve the functional capabilities of people with disabilities (PwDs).

"AT helps people who have difficulty in speaking, typing, writing, remembering, pointing, seeing, hearing, learning, walking, and many other things".

"Different disabilities require different assistive technologies," he said.

He explained that a screen reader would be used primarily by those with visual impairments.

"It converts text, buttons, images, and other screen elements into speech or braille. It is available on most operating systems.

"Screen readers may be found on both desktops and mobile devices. Non-Visual Desktop Access (NVDA) is a free software application for Windows that enables blind and visually impaired people to navigate the computer and access most of its features".

"People who are blind use a set of key instructions to move around the screen".

For Android devices, there is an application called Talkback, while VoiceOver is a built-in program for Apple iOS devices that turns text into speech.

Meanwhile, an optical character recognition (OCR), also known as text recognition, is a program that extracts and reuses data from scanned documents, camera photos, and PDF images.

OCR software picks out letters in an image, turns them into words, and puts the words into sentences. This makes the original content accessible and editable. It also gets rid of the need to enter data by hand.

"For OCR, there is a popular optical character recognition mobile application for the blind called KNFB Reader".

"They can snap images of printed books and most reading materials using their phone's back camera and have their phone read to them aloud," he said.

Microsoft just released a new app called 'Seeing AI' and 'Envision AI' that helps people who are blind or have low vision see and understand their surroundings better.

These features include reading shot text, identifying products, describing a person, currency identification, magnifier, colour identification, describing a scene as well as light detection.

These are just some of the ways that blind and visually impaired people use computers, mobile phones and other kinds of technology. As assistive technology has improved, it has become easier for them at any age to learn, talk and be more independent at home.

In line with such an evolution and various amenities, NCBM executive director Wong Yoon Loong said using mobile phones had been quite accessible and meaningful for the blind.

"Having a smartphone is now a must since you need one everywhere you go".

"It does not matter how much the phones and devices cost as long as we use them sensibly," he told the New Straits Time after a seminar on disability inclusive digital accessibility for blind people today.