

There's an app for that: how assistive tech changes lives of people with autism

A conference in Manchester is highlighting the groundbreaking technologies available, from biometric wristbands to robots that help with interaction.

Bethan Jones is a teenager with autism and has been going through her ultimate nightmare: transition from school to college with a complete change of routine, bus route and circle of friends. But she is managing to cope with these steps to independence thanks to a high-tech phone app that links her directly to her own support worker when her stress levels become too much.

The 16-year-old from Wirral has been using the cloud-based app Brain In Hand for the past six months to plan her daily activities studying childcare at college in Birkenhead. This includes coping strategies and logging her stress levels according to a traffic-light system. Pressing the red button puts Bethan straight through to her support worker at Wirral Autistic Society so she can get immediate advice and reassurance.

This technology has transformed the lives of both Bethan and her mother, Kate, who can now work without being on constant call to support her daughter. Kate says: "It is absolutely brilliant. Bethan had struggled with stress ... and getting from A to B, for a long time. Since she got the app, she managed to sit her GCSEs and surprised us by how well she did, and is managing life in a completely new college environment, without her mum taking her to the school gates."

Brain In Hand is one of a range of products being highlighted at Autech 2015, a conference in Manchester on 1 October to highlight the groundbreaking technologies available to support people with autism. It is aimed at professionals and carers, and highlights the opportunities for improved practice through the use of these assistive technologies (AT).

AT can mean anything from a wheelchair to an eye-activated, voice-producing machine. But Wirral Autistic Society has organised Autech 2015 – the UK's first – on the basis that people on the autistic spectrum have been neglected in terms of resources. The newest technology opens the door to their greatest challenge – communication.

Biometric wristbands now being developed in the US represent a much-anticipated breakthrough for the autistic world, to be presented at the conference. They short-circuit communication difficulties by recording an autistic person's heart rate, sweating, temperature and other stress responses in real time. These readings, combined with information from cameras, can act as a "window into the body" of an autistic person, to enable the identification and modification of problem areas. The bands are expected to be available commercially within three years.