

ability

Assistive technology at work

Issue 91 Autumn 2013

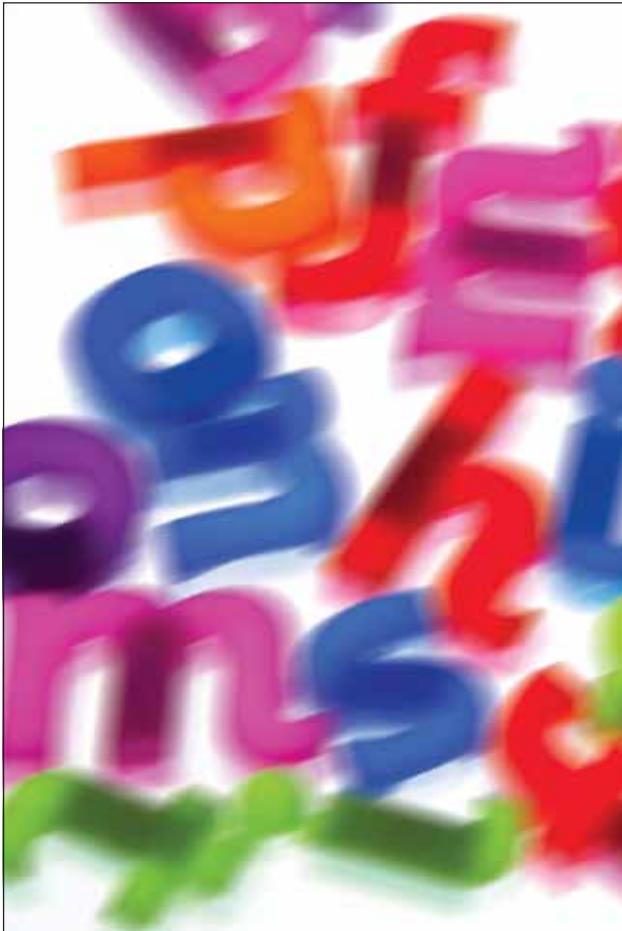


SPORTS TECHNOLOGY

Giving disabled
athletes a
helping hand

PLUS

- The autism-friendly workplace
- Why Eastbourne has gone loopy
- Under the hood of iOS 7
- How telecare baffles relatives
- Learning tech lands a £1m boost



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The end of the road for rights?

Kevin Carey says global digital corporations do not acknowledge disability rights



Inaccessible exams in English and maths are stopping disabled people from getting into jobs, says John Lamb

Government fails apprentice test

The organisations that set GCSEs and A-levels have agreed that this year candidates will be able to use assistive technology when they take their exams.

However, young people looking to gain work experience through the Government's apprenticeship scheme cannot rely on similar assistance.

Would-be apprentices with dyslexia and other learning difficulties are still not able to access assistive software when sitting their compulsory English and maths exams.

The British Dyslexia Association (BDA) says it has had 60 meetings with civil servants in a bid to get the policy changed, but with no success so far.

The BDA says the functional skills tests set apprentices up to fail because the technology used to take the tests produces gobbledygook when it tries to read out papers.

The Liberal Democrat peer Lord Addington, who has dyslexia himself, has been campaigning for government action on the issue for more than three years.

He recently told peers debating the committee stage of the children and families bill that the problem lay with legislation on apprenticeships introduced by the last Labour government.

The legislation states that apprentices must pass both English and maths tests to secure accreditation.

The government is reluctant to make changes because that would increase red tape for small businesses.

The current situation is not only unjust but makes a mockery of the Government's claim to be trying to improve the job prospects of disabled people.

David Cameron assured 300 business people who came to the Working Together conference in July that he wanted to break the myth that employing disabled people was complicated.

He launched a two-year campaign to make employers more 'disability confident'.

The Government itself needs to find the confidence to sort out what is a very straightforward problem. Especially since it could be breaking the Equality Act.

Disability Rights (UK) points out on its website that if students use computer equipment, specialist software, a reader or a scribe on their course they should have access to that help in exams.

It is not the first time examiners have come under fire for failing to make their exams accessible.

The Project Management Institute (PMI), an American organisation offering qualifications in project management, was deemed to have broken the Disability Discrimination Act, which was then in force, for not allowing a student to use the JAWS screen reader in an exam room.

Surely, those involved in education and training should have learned the all important lesson on accessibility by now? ■

Voice-activated software for accessing the internet

I found a copy of your excellent *Ability* magazine in the college library where I work and wondered if you could help me?

I am looking for voice activated software to help me use the internet – scrolling, clicking, etc – as I have a lot of problems with my neck, shoulders and arms, so using the keyboard or mouse is not an option.

I am testing Dragon 12 software which seems to work really well in Word and Microsoft Outlook but is very tricky to use for the internet.

Do you know of anything better or where I can find some information about how to use Dragon 12 with the internet effectively?

Antonia Donajgrodzki
Leeds City College

Editor writes: In addition to the market leading Dragon NaturallySpeaking software, voice recognition is a feature in Microsoft's Windows Vista, Windows 7 and Windows 8 operating systems.

There is a growing number of apps and specialised voice recognition tools associated with particular software.

For example, the famous Siri service on Apple products. Not to be outdone Google has also been increasing the number of its services that can be voice controlled, they now include internet searches.

See this link for a recent article on the subject <http://bit.ly/1gmELIB>. I also found a useful list of new voice recognition software on CNET <http://cnet.co/1fefOGb>.

However, your question is to do with DNS 12 and the internet. I have come across grumbles about the length of time it takes to set up and train DNS 12 and more serious complaints about the need to disable other software such as Flash and Shockwave in order to allow DNS 12 to work. Perhaps you can be a bit more specific about your problems.

Student who needs to stand in order to write

We have a student who has asked whether we can find some kind of mechanism that will allow her to stand up and write within the lecture theatre or seminar room environment.

She wants something that is strong enough to lean on while she is writing, so we are obviously concerned that just putting something on top of a desk for her to write on will neither be strong nor safe enough.

The other problem is that, whatever solution we can come up with, we will be looking at buying several of them, since I can't imagine that, whatever we find, is going to be small enough for her to transport around the campus.

We are probably therefore going to have to store one in each of her most regularly-used environments.

Dr Paul Jarman,
Disability Advisor (Temporary),
University of Roehampton, London

Commons motion on polio needs support of your MP

On the 15 October, Andrew Love MP tabled early day motion 573 in the House of Commons on behalf of The British Polio Fellowship.

It called for the Department of Health to bring forward a strategy to address the needs of those living with Polio and Post Polio Syndrome (PPS) and to publicise those needs within the medical profession.

Your support could be vital to making this a reality.

You can make a difference – not with money, but by urging your local MP to support this motion.

As the motion makes clear, a greater understanding of PPS among healthcare professionals is essential not just for thousands of the charity's members, but also the 120,000 people in the UK today still living with PPS. We hope many people throughout the country will support

the motion.

The charity's website (www.britishpolio.org.uk) has details of how to contact your MP as well as a template letter.

Ted Hill MBE

Chief Executive

The British Polio Fellowship

Wheelchair user needs help to get going with ICT

My name is Adrian. I had a bad road traffic accident in 1998, which has left me in a wheelchair. I only have limited time on this computer, so I would like to get my own. I was just wondering what help I could have. Could you help me, or put me in touch with someone who could. I live near Cambridge.

Adrian Cubitt

Editor writes: There are several organisations that might be able to help you. AbilityNet runs a free helpline service (0800 269 545) providing information for disabled ICT users. Leonard Cheshire also runs a series of centres around the UK <http://bit.ly/184CCD7>.

If you have a job, Access to Work is a programme run by JobCentre Plus that provides assessments and grants for IT. If you are studying, then the Disabled Students Allowances provides grants for equipment.

Cheap or free computers are also available from IT companies and charities. *Ability* magazine published this item on free laptops fairly recently <http://bit.ly/HFcdov>.

HAVE YOUR SAY

Ability welcomes letters and articles on all issues relating to IT for disabled people in work, education and daily life.

Contributions can be sent to the editor, John Lamb, at john.lamb@abilitymagazine.org.uk

Government pumps £1m into tech for disabled learners

The Government is pumping £1m into the development of assistive technology for disabled learners.

And technology developers are pitching for a share of the cash in two competitions.

The first is called Ready Steady STEM and is about opening up access to science, technology, engineering and mathematics (STEM) subjects.

The second is titled Good to Go and is concerned with work based technologies and equipment in a different types of industry.

Designers are being asked

to invent new products that will help those with disabilities and learning difficulties access work, training and education.

The competitions are being run by charity Jisc TechDis, the Department

of Business, Innovation and Skills and the Technology Strategy Board, which funds technical innovation in the UK.

“Equality of opportunity should be available to everyone regardless of circumstance and these competitions are an important part of our support for independent learning, working and living,” said Sal Cooke, director of Jisc TechDis.



Entrants for the Ready Steady STEM contest will be asked to tackle the particular problems that disabled science students have in working with pen

and paper, manipulating formulae and symbols, or interacting with diagrams and graphs.

The solutions will be aimed at dyslexic, blind or partially sighted people, those with learning difficulties

(including dyscalculia); and students with manual dexterity difficulties.

There are two elements in the Good to Go scheme: systems to manage risk in unfamiliar circumstances and systems to give people access to information so they can work with less supervision.

In many cases it is difficult to create the instructions and information needed to enable disabled people to learn to use industrial systems and equipment safely, says Jisc TechDis.

The competitions, which could have up to four winners, are split into two phases. Phase one is intended to show the technical feasibility of the proposed concept. The development contracts will be for a maximum of six months with likely funding of £200,000.

Phase two is intended to develop and evaluate prototypes or demonstrators from the more promising new technologies from phase one. It is anticipated that funding will be up to £300,000 for a maximum of 24 months. ■

www.jisctechdis.ac.uk/sbricompetitions

Internet is becoming more accessible, or is it?

The digital gap is closing, according to the communications regulator Ofcom. There is now little difference in the numbers of disabled and non-disabled people between the ages of 15 and 34 who go online.

Some 90% of disabled people in this age group have been online compared with 93% of their non-disabled counterparts, says a study by Ofcom.

However, for older, less affluent disabled people over 65, internet access levels are at their lowest.

Across all age groups, internet ownership is 55% for disabled consumers, compared with 83% for non-disabled consumers.

This can partly be explained by

their older profile as half of disabled people are aged over 65.

However, that does not mean that websites are more accessible.

Recent research shows that the great majority of websites are still failing consistently to comply with even the lowest priority checkpoints of the accessibility guidelines set out by the international web standards body the World Wide Web Consortium, according to Robin Christopherson, head of digital inclusion at AbilityNet.

“Despite a plethora of initiatives to raise awareness of this issue, from Citizens Online’s ‘Fix the Web’ campaign to Global Accessibility Awareness Day, the situation does not seem to be improving at a

significant rate,” he says.

“It is ironic that in this divided digital economy, the UK public sector is now heavily promoting the elusive ‘channel shift’ – a switch from dealing with citizens by phone, post or face-to-face, to digital channels.”

The Ofcom report also shows that mobile phone access is broadly comparable between disabled and non-disabled adults.

Ninety-two per cent of disabled people aged 15-34 have a mobile phone compared to 87% among non-disabled adults in this age group.

Ofcom’s Disabled Consumers’ Ownership of Communications Services report can be found at <http://bit.ly/1b8XXyp> ■

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Poll reveals relatives are baffled by telecare

Carers are missing out on the help technology can give when looking after older, ill or disabled loved ones, according to a recent poll.

While over seven out of 10 adults routinely turn to technology for banking, shopping and communications, a survey commissioned by Carers UK shows only three out of ten use technology to help care for disabled relatives.

The national YouGov poll, commissioned by the charity and supported by Tunstall Healthcare, reveals that all generations are failing to switch-on to care technologies.

When asked what their top sources of support would be if they had to care, only 4% selected technology as one of their top two.

Telecare, the use of monitors,

sensors and alarms to maximise independence and minimise risks, is one of the most established care technologies, says Carers UK.

Yet, when asked if they would use telecare without a description of what it is, just over one in eight adults said they would use it, with 80% stating that they were not sure what telecare is.

When telecare was described to respondents, the percentage saying they would use it to help them if they were caring more than doubled.

Carers UK says the polling indicates the barrier to using care technology is often a lack of knowledge, advice and information rather than a public resistance to health and care technology.

"We are not realising the capacity for technology to save time and



Only three in ten carers use technology

reduce stress for the growing number of families who are caring for older and disabled loved ones," said Heléna Herklots, chief executive of Carers UK.

The charity has called for a step-change in public and professional awareness of health and care technologies. ■

www.carersuk.org

Scope tackles the digital divide

A portable, fold-up stand for reading with a smartphone and oversized keypads for a disabled musician were among devices recently demonstrated by the Helen Hamlyn Centre for Design.

The prototypes, produced as part of a 15-month project funded by BT, explored how to adapt mainstream devices so that disabled people could lead more independent lives.

"Mainstream devices can be highly adaptable but don't do a great job of meeting disabled people's needs," said the charity Scope, which produced a report on the project called *Enabling Technology*.

"Technology designed especially for disabled people can be very good at meeting needs, but is often expensive and doesn't do everything a mainstream device can."

Technologists need to adapt mainstream technology, build easy to tailor products and measure accessibility by how long it takes to complete a task.

The key to creating enabling technology is, wherever possible, to support disabled people to create their own solutions, says Scope.

"This means focusing on the person, not the system – on adaptability and flexibility rather than rigid codes and standards." ■

Briefs

Campaign to boost number of grant claims by students

AbilityNet has launched a national campaign to encourage take up of the Disabled Students' Allowances (DSA). The charity says many students have absolutely no idea that they are eligible for this supplementary allowance, which is not means tested and can provide considerable support. Support can

be worth over £5,000 in equipment, or up to £21,000 for non-medical help in the form of a personal assistant or extra travel costs <http://bit.ly/18lhNh6>

Top of the class at BETT

Five assistive technology companies have been nominated in the BETT exhibition awards for special educational needs solutions. They are: Inclusive Technology for Chooselt! Maker 3; Crick Software for Clicker Docs and Clicker

Sentences; JellyJames Publishing for Dynamo Maths; Osborne Technologies for SensoryPod; and Signs for Success for Word Rumble. Osborne Technologies has also reached the final of the company of the year category while assistive technology company Texthelp has been named as a possible exporter of the year. The awards will be announced at a ceremony hosted by Jo Brand at the Brewery in London on January 22.

www.bettawards.com/

BCS group to tackle accessibility

BCS, the chartered institute for IT, is appealing for people to join a new group that aims to raise awareness of digital accessibility issues.

The Digital Accessibility Specialist Group (DASG) is being set up to improve understanding of the needs of disabled people among IT professionals.

"We as professionals need to be aware of the techniques that make IT accessible to all," said David Rippon chair of the group.

"The government is going for a digital by default policy, which means if you are not on the internet you will find it very difficult to access Government services.

"Yet disabled people are much more likely to be living in homes without internet access compared with non-disabled people.

"A large number of disabled

people have never been online because digital services remain inaccessible to them.

"Last year 46% of disabled people were in employment compared with 76% of work age, non-disabled people.

"The ability of individuals with disabilities to access IT systems is a significant factor in these statistics."

The DASG will focus on two areas. First, it will work to ensure that the BCS implements the highest possible IT accessibility standards. Second, it will work to increase the awareness of IT disability accessibility issues among IT professionals.

Potential members of the proposed Specialist Group have already published a report on the BCS website that makes suggestions for minor changes to make IT more

usable by disabled people.

The DASG has offered to carry out an annual status report on the digital accessibility of BCS IT systems and has drafted a digital accessibility policy for BCS.

The group wants to ensure BCS members acquire digital accessibility skills by including them in professional qualifications.

It also aims to raise awareness through an annual conference and a regular survey of members' awareness of the issues involved.

"There is no need to be a member of BCS, we are open to all," said Rippon. "If you have been involved in BCS groups in the past you will be welcomed with open arms and there are no fees to pay either." ■
For further information contact David Rippon at david.rippon@pmservices.co.uk

Ultrabike ends up in Science Museum

An ultrasound sensor kit enabling people with visual impairments to ride a bicycle is part of a new exhibition at London's Science Museum.



Sensors on the UltraBike system give a cyclist constant directional feedback of obstacles ahead and at each side, via vibrating buttons positioned underneath each thumb.

The unit, which is detachable and can be fitted onto the handlebars of any bike, was designed by electronics engineer Dr Paul Clark (pictured) and is on display in the

museum's Antenna gallery.

The technology enables cyclists who are blind or visually impaired to negotiate their way safely and independently along a controlled cycle track.

Sound Foresight Technology, the company that developed the UltraBike, used the same obstacle detection capability in its UltraCane, an electronic mobility aid.

The UltraCane mimics the echolocation abilities of bats and was

featured on the BBC documentary series *Miracles of Nature*, fronted by Richard Hammond in 2012.

The display at the Science Museum includes an interview with Dr Clark, in which he explains how he approached the challenges of turning a ground breaking 'what if' idea into an engineering reality. ■

For details of the UltraBike exhibition at the Science Museum <http://antenna.sciencemuseum.org.uk/ultrabike>

GCSE students can use literacy aids in exams

Students sitting GCSE and A-Level exams can now use word processors with spell check and auto correct software.

The Joint Council for Qualifications which represents all the exam boards, has this year ruled that students for whom this is their

normal way working can use literacy support software.

Candidates will not have access to marks awarded for spelling, punctuation and grammar and spell checking is not allowed for certain modern foreign language exams. ■
See <http://bit.ly/18Z57S6> for more.

Take Control

RSLSteeper takes Assistive Technology to the 'next level'

We've all seen cases where individuals have difficulty performing everyday tasks like opening the door, operating fans or lights, or using the telephone or television. Situations like this often require carer intervention. But what if a carer is not there? Visitors cannot gain access or doors are left unlocked, communication can be relatively non-existent and entertainment devices remain on the same channel ... at the same volume. When this happens users can become isolated in their own home. So what can be done?

Well RSLSteeper, global specialists in assistive technology, may have the answer.

Their philosophy is to restore independence through technology, thus enabling people at all levels to communicate and take control of their living environment. Edd Grinham, Marketing Manager at RSLSteeper explains:

"It's about empowerment, using Assistive Technology to create a level playing field and return independence to the individual. It may come through a communication aid, an environmental control device or a combination of the two. Users can control their living space once more, communicate freely, and remain safe in their home with the peace of mind that they again have control over what they want to do. It can increase self-esteem and motivation."

He believes that someone who is independently engaged and motivated is in the best position to make important decisions about their day to day activities and their life:

"Everyone has the right to reach their full potential and AT leads to a greater quality of life. With over thirty years of experience in AT, we know that everybody's abilities and needs are different. From individual users, to schools, colleges, hospitals & care homes, we have experience at every step of the journey."

"We've found that a 'one size fits all' approach does not work. We have a comprehensive range of products and have the experience and expertise to advise on the best method of access for the client, and can build an AT solution around each individual need."

"We can support people across the full ability spectrum, from people who are physically able to those who have more advanced mobility needs."

HOW IT WORKS

Touch access

RSLSteeper provides both dedicated and multi-function devices, like the iPad. These can be fully customised to particular needs and do as little or as much as required.

Switch access

For those who find precise dextrous tasks difficult this replaces the need for fine motor skills with a push button or switch. RSLSteeper can set up single or multiple switches depending on the need and ability of the individual.

Eye Gaze access

Where dexterity is low or a client suffers from a high level of paralysis, eye gaze may be the solution. Eye gaze is a marvel that really has to be seen to understand its amazing potential.



WHO CAN BENEFIT?

Disabled people

Returning the ability to control surroundings or to communicate, AT really can break down the barriers that many disabled people face.

NHS

By assisting clients to stay independent in their own homes for longer. It can drive down the care costs that might be incurred if the individual otherwise had to go into residential care. Clients are also able to do more, independently of local care.

Occupational Therapists

Allowing care to be focussed on therapy, AT also brings a peace of mind that clients are not isolated when an OT is not present.

Care Homes

Offering independent living in a care home environment is fast becoming the standard. AT reduces the time pressures that care givers are under by allowing a resident to control their living space independently.

Architects

Being able to offer independent living solutions, architects are able to accommodate a wider range of clientele.

Watch our short video about AT by visiting:

www.assistive-technology.co.uk/downloads/videos

or scanning the QR code with a Smart Phone / tablet.



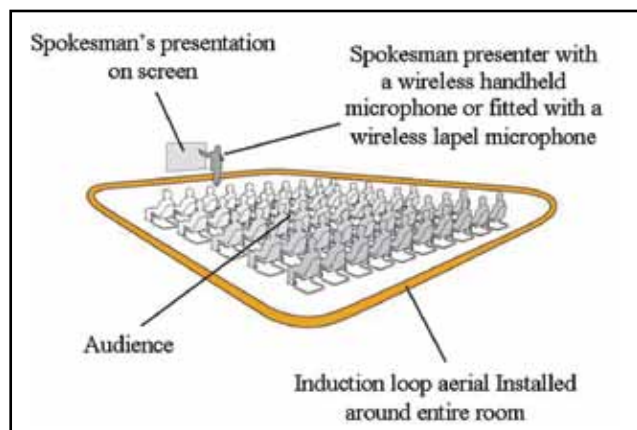
Let's Loop Eastbourne campaign

A campaign by Hearing Link called Let's Loop Eastbourne has won the backing of health minister Norman Lamb for its efforts to get public premises to fit the technology.

A recent survey by Hearing Link found that many places in Eastbourne did not have loops. Those that did either had loops that didn't work or staff that had not been trained in how to use them.



A customer service desk fitted with a hearing loop



A diagram of a theatre fitted with a hearing loop

A similar survey in Scotland found 80% of shops, offices and public buildings either did not have a loop or it was switched off.

Hearing Link points out on its website that service providers are required by law to have hearing loops on their premises to help the UK's 2m hearing aid users.

A hearing loop is a sound system for use by people with a hearing aid. The hearing loop provides a

magnetic, wireless signal that is picked up by the hearing aid when it is set to the telecoil or T setting.

But loops can suffer interference from electric cables and staff need to know how to switch on the devices.

Many hearing aids lack telecoils, which cost around £1.50 to fit, or multi-channel sensors that could detect a loop.

"The issues that have resulted in loss of confidence with hearing loop technology are ones that are fairly simple to resolve – and awareness and understanding is absolutely key to this," said Dr Lorraine Gailey, chief executive of Hearing Link.

Norman Lamb wrote to Stephen Lloyd MP, Patron of Hearing Link and local MP lending his support to the campaign.

The Eastbourne MP is a hearing aid user and also recently launched a campaign to introduce hearing screening for everyone at the age of 65.

"With many millions of hearing aid wearers across our nation and many more expected in the future, it makes sense for more conference centres, hotels, theatres, banks, supermarkets, and all manner of buildings to be properly kitted out to the benefit of all their customers," said Lamb.

Hearing Link ran an international conference in Eastbourne at the beginning of October called Hearing Loops For All that looked at ways of

making sure hearing loops were more widely used.

"Although hearing loops are not the only assistive device that should be made available, they offer a practical and cost effective way to help services and facilities become more accessible because the technology is widely available and simple to use," said Gailey.

A hearing loop consists of a microphone, an amplifier which processes the signal, and a wire or loop placed around the perimeter of a meeting room, a church, a service counter and so on.

The wire acts as an antenna that radiates the magnetic signal to the hearing aid.

A service counter hearing loop costs between £150 and £200. Room hearing loops are more expensive depending on the size of the room.

However, researchers are already working on digital, radio technologies to replace the magnetic loop.

The technical committee of the European Hearing Instrument Manufacturers Association has been investigating a successor for loop systems for quite some time.

Short range radio systems such as Bluetooth, Zigbee and the 3G and 4G mobile phone networks are all candidates to replace the loop.

These digital technologies could offer better quality sound, less interference and might be cheaper to install.

"Loop systems as we know them today will stay around for many years to come," said Per Kokholm Sorenson, director of R & D Electronics at Widex.

"But the hearing aid industry has agreed on the key requirements for a telecoil replacement system, the next step is to conclude our technology discussions." ■

www.hearinglink.org



Sky trials sign language for customer services

Sky is trialling a service that allows people to contact the broadcaster's accessible customer services team using British Sign Language (BSL).

Deaf customers who prefer to communicate in BSL can try out the service by visiting Sky's accessibility website.

From there they can be connected to a video relay service provided by a BSL interpreter based at a social enterprise called SignVideo.

The interpreter will connect with



a member of the accessible customer services team and facilitate the call, relaying information between the Sky agent and the customer.

The video relay service is available from 8am to 6pm Monday to Friday and can be accessed from anywhere in the UK through

SignVideo's BSL LIVE service, using a webcam.

The trial period runs until January 1 2014 and the service is free to use.

"The commitment by a leading broadcaster to open access for deaf British Sign Language (BSL) users via SignVideo is to be welcomed

as a major step forward," says Jeff McWhinney chair of SignVideo (pictured).

"Now we, deaf people, await other broadcasters, telecommunications providers and other organisations across the UK to follow Sky's example by seeing what they can do to support BSL access, bringing their customer services into the 21st century too."

Sky is a major funder of the British Sign Language Broadcasting Trust, which produces independent content presented in British Sign Language and broadcasts on the Community Channel. ■

www.sky.com/accessibility

WheelMate app homes in on accessible toilets

Finding clean and accessible toilets is a bind for wheelchair users, but a new app could make the search a lot easier.

WheelMate is a free app and a website that provides information about 30,000 wheelchair accessible toilets and parking spaces in 45 countries.

It allows users to plan trips by putting together lists of locations and printing them out.

Commissioned by Coloplast, a company that sells intimate healthcare products, Wheelmate relies on users to update the site with details of facilities they have found.

Wheelchair users are also encouraged to rate and comment on the toilets and parking spaces already listed on WheelMate.

So far some 7,000 people have visited iTunes or Google Play to download WheelMate.

"I downloaded this app last night and added a couple of locations that I've used and find acceptable," said one user. "Too many businesses get away with providing bare bones restrooms, while others have made outstanding efforts."

WheelMate was developed by a Danish agency called Advance and was a finalist in the Global Award for healthcare advertising competition. ■ www.wheelmate.com/

Dyslexic science students need podcast lectures

Lectures should be available as podcasts or videos, according to a guide to teaching dyslexic science, engineering and technology and mathematics (STEM) students.

The recommendation is one of a number contained in a publication by the Institute of Physics entitled Supporting STEM students with dyslexia. The guide urges higher education staff to make notes available in a non-PDF format for screen-reader accessibility and

suggests that institutions should have a policy on calculators that takes account of visual stress.

"Scientific notation can present a barrier in itself, particularly where it is interspersed with text and subtext," says the guide.

"In many course textbooks, hand-outs and notes, the figures and graphs are not necessarily on the same page as the text, and this can be confusing for the reader, who then has to go back and forth between

several pages."

The number of disabled students in STEM subjects varies between 11% in agriculture and related science and 6% in engineering and technology, according to author Dr John Conway, chair of the STEM Disability Committee.

About half of all disabled students declare a specific learning difficulty such as dyslexia, dyscalculia and dyspraxia. ■

<http://bit.ly/1b9jzy8>

Apple pie order

Self-confessed Apple addict Jon Gibbins takes a bite out of the accessibility features in iOS 7

In recent years I've found myself focusing on mobile technologies, inspired by the accessibility features being developed for platforms such as iOS and Android.

Apple did not let us down with the release of the iOS 7 operating system for iPhones and iPads in September.

Firstly, it is interesting to note that the Accessibility settings have been given a more prominent spot in the Settings app.

They have moved from the near the bottom of General settings to near the top of the screen, making them much easier to find.

Alongside improvements to existing features such as Siri, VoiceOver, Guided Access, closed captions and Braille support, two new features stand out: Switch Control and Handwriting support.

Switch Control is a great new feature that allows iOS devices to be controlled using physical switches.

While this is nothing new in the assistive technology world, it's the first time that such a feature has been built into a smartphone operating system.

A cursor appears on the screen that can be set up to be moved by several methods: pressing external switches, touching different areas of the screen, or even head movements detected by the camera.

Be careful if you have a go at the feature that detects head movements, as it's a bit tricky to get used to and to switch off if you decide you don't want it.

The cursor is customisable, so you can change its colour and make it larger.

It can also be set up to automatically scan through elements on the screen, allowing access by people who can only use a single switch.

Unfortunately, it seems you currently cannot use Switch Control and VoiceOver together.

Handwriting support lets VoiceOver users enter text using their finger to write on the screen.

This is supplemented by a series of gestures for adding a space, adding new lines, deleting text, and switching keyboard modes (lower case, upper case, punctuation, numbers).

While this feature was seen in the 1990s on the PalmPilot, it's been a long time coming to iOS.



The latest iPads now run the much improved iOS 7

The innovation now comes from the other things handwriting recognition can do.

Handwriting support goes beyond just entering text, as it can also be used to quickly navigate pages in Safari, or apps on the Home screen.

For example, writing the letter 'h' will make VoiceOver navigate through headings on web pages, and writing letters on the Home screen will filter the apps in order to quickly find the one you're trying to find.

There also seems to be some new handwriting support outside VoiceOver, since the new version of the Google Translate app has added the ability to use handwriting on the screen to write words in 49 languages.

Further improvements have been made to VoiceOver in iOS 7. Enhanced voices can be downloaded for clearer speech output.

The VoiceOver cursor can be made larger. Sound cues are now optional.

If you are new to using VoiceOver, the Settings app has included a practice screen for some time, but now you can access this feature using a four-finger double-tap when VoiceOver is on.

Captions and Subtitles is now a global setting that allows closed captions to be enabled for all videos and provides options for customising their appearance.

Users can select the font, size and colour used for the text as well as the background colour.

There are now a number of other customisations that can be set up to make it easier to use iOS.

Bold text makes it easier to read text on the screen, especially considering the thinner text introduced by iOS 7.

A new Increase Contrast feature can also help make text more legible.

The new parallax motion effect can be a distraction

for many people, so it's good that you can turn that off using Reduce Motion.

You can also reintroduce the text labels to on/off switches, which were removed in the redesign for iOS 7.

Beyond the accessibility features we find in the iOS settings, work goes on behind the scenes to help developers to make their apps more accessible.

One of the biggest changes here in iOS 7 is the ability for apps to set text size according to a system-wide setting.

Developers can now add Dynamic Type support to their apps, providing much improved support for large text in all apps.

The new Text Size and Larger Dynamic Type options replace the Large Text setting in previous versions of iOS that would only work in a limited set of system apps.

These settings now work in any app that supports Dynamic Type.

I'm at risk of sounding like an Apple fanatic, so I must say that some Android phones and tablets have great accessibility features that are on par with those we see on iOS devices.

For me, though, the innovations we see from Apple are very welcome in our industry and are helping to push mobile devices forward as the most affordable and accessible way for people to access technology and get online.

If you would like to see iOS 7's new accessibility features in action, look at Luis Perez's series of videos on YouTube at www.youtube.com/watch?v=rLNhZsz9wH8 ■ *Jon Gibbins is an accessibility developer, tester and trainer at DIG Inclusion <http://diginclusion.com>*

The accessible iPhone

The thing that excites me about the world of assistive technology is the way it can help people access all sorts of things, from online services to composing music.

Since the release of the iPhone 3GS in 2009 with a mobile version of its screen reader VoiceOver, Apple has been a clear innovator in mobile accessibility.

It was the first gesture-based screen reader on a mobile device. It came free with my new smartphone and would fit in my pocket. Amazing!

That first version also included a system-wide screen magnifier and support for closed captioning and Braille displays.

By the time iOS 6 was released last year, the iPhone, iPad and iPod touch included several more innovative features.

Assistive Touch overlays a menu on the screen that helps perform touch gestures that are difficult for some people to do, such as pinch to zoom.

It can also be used with adaptive hardware such as a joystick, making it easier to use for people with physical disabilities. It also happens to be great if any of your hardware buttons stop working.

Guided Access lets you set restrictions on apps and the features of your iOS device.



iPhone 5s

You can stop people from leaving the current app or from accidentally pressing hardware buttons, which is great for working with children or people with autism.

It also helps businesses and museums, which are increasingly handing tablet devices over to their customers to demonstrate products or guide visitors around exhibitions.

There have also been a variety of phone-specific features that are great for those who are hard of hearing or deaf.

Custom Vibrations is a way to create 'physical ringtones' for contacts and flashing LED alerts help you see when people are calling or a new message has come in.

The iPhone 4 and 5 are hearing aid compatible.

Hearing aid manufacturer GN ReSound introduced the first 'Made for iPhone' hearing aid this October, which

promises some interesting features, including an app to control the hearing aid.

Some of the better-known features are helpful for all of us, but also aid accessibility.

Siri lets us speak to our iOS devices to set reminders, help us find directions or launch apps, particularly useful if you find it difficult to use a touch screen or a keyboard.

FaceTime lets us do video calls, but it also opened up the mobile phone to people who communicate using sign languages.

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Pretty pages can be accessible

Web design firm Nomensa recently relaunched its website. Chief executive Simon Norris says that attractive design does not have to compromise accessibility

Fifteen years after the Web Accessibility Initiative was launched, which aimed to improve web usability for those with disabilities, online accessibility is still widely ignored.

Far too often there is a belief that a compromise must be made between accessibility and an attractive design.

As a result, myriad misconceptions have emerged, often preventing people from making a determined effort to integrate accessibility into their websites.

Although there are a number of advantages to creating an accessible website, including the potential increase in audience numbers, digital organisations need to demonstrate that it is possible to achieve this without impacting on design, and this is often where the problems begin.

By failing to ensure sites are functional and accessible without compromising on design, businesses are essentially risking customer experiences and therefore revenue.

A popular myth relating to web accessibility and user experience is that accessible and attractively designed websites do not go together.

A significant number of advocates of web accessibility tend to have content and/or technology driven websites and do not demonstrate that creativity can also be included as part of an accessible user experience.

Beauty combined with accessibility

However, web accessibility need not affect the physical design of the site itself in any way. Instead, all websites should be beautiful and easy-to-use while offering a high level of accessibility, which in turn creates an excellent user experience and a positive online journey.

The misconception that websites have to sacrifice design for accessibility comes from the early days of the internet, when technology restricted the developers' choice in terms of accessibility and design.

However, in today's reality, the web designer has a lot of freedom to design creative and engaging experiences.

The Web Content Accessibility Guidelines (WCAG) explain that website designers can use images and

videos on their websites as long as they ensure the content is still fully accessible by providing captions for videos or offering alternative text descriptions.

Accessibility is part of the user experience

Accessible sites do not have to be text-only, with monochrome designs and static content, because after all, accessibility is a key part of user experience.

There are a number of layout and design options that mostly happen behind the scenes and do not affect the presentation or the accessibility of the website.

For example, text size can be big or small, provided it is re-sizeable and you can use as many images as you like, as long as an alternative, detailed description is also offered to the user.

Today's web designers need to think about implementing interactivity features, such as presenting information in a compelling format for modern web browsers, as well as for assistive devices, such as screen readers, which will improve the overall web page design, while sustaining the

website's accessibility levels.

In today's digital world it is possible to create a media-rich, interactive, attractive, engaging and accessible site for everyone. Those who claim otherwise often misinterpret the accessibility requirements and perceive them to be more restrictive than they actually are.

Web accessibility was once overlooked whereas today it is considered a fundamental objective. It is therefore the responsibility of professionals to be accountable for providing a holistic, design-oriented approach, which is usable by everyone, to the greatest extent possible, without the need for any reworking or specialised design.

Web accessibility is not only about disabled users being able to access the website; it is about those in charge of user experience who should provide exceptional user experiences to ensure universal access while maintaining a high level of creativity, design and functionality. ■

www.nomensa.co.uk



Nomensa's redesigned website aims to be accessible and attractive

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In control at home

Nikki Barker explains how an EvoAssist environmental control system helped her become more independent

Home control technology based on touch screens has enabled 48-year-old Nikki Barker to enjoy the kind of freedom that her non-disabled friends take for granted.

Nikki, from Gristhorpe, North Yorkshire, has a debilitating condition called chronic spinal muscular atrophy (SMA) and severe scoliosis.

But she has regained a degree of independence and control of her living environment with the aid of technology.

She has had SMA since birth and has been in a wheelchair since her early teens. In her mid-twenties Nikki began to lose the movement, strength and dexterity of her hands and arms.

Almost completely paralysed from the neck down, Nikki is dependent on an electric wheelchair, an assortment of specialist equipment and day-to-day care from her parents.

“Losing the use of my hands and arms was incredibly difficult to come to terms with, as it meant that I had to give up a wide assortment of hobbies, sports and crafts which I enjoyed,” she said.

“I also lost the ability to do many of life’s simple everyday tasks which I had previously taken for granted.

“Simple activities such as changing the channel on the television, increasing the volume on the stereo, drawing the curtains, answering the telephone or turning electrical appliances on and off, all became increasingly difficult, tiring, frustrating and eventually impossible.”

Nikki was first offered a basic environmental control system, which allowed her to regain some control over her home environment and became less dependent on her parents.

However, as Nikki’s disability continued to deteriorate, she began to feel frustrated by the lack of technological advancements being made for disabled people.

“Bizarrely, I noticed that my able-bodied friends had access to cutting-edge technology and gadgets which made their lives less physically demanding, whereas the design and function of the equipment I was using hadn’t significantly changed for the past 20 years.

“I quickly began to feel frustrated as my increasing needs started to outgrow the systems I had in place, and fears for my future independence became a regular source of worry and concern.”



Nikki Barker with her EvoAssist control system

Nikki turned to RSLSteeper’s assistive technology team, which introduced her to their latest innovation, EvoAssist, an application that turns an iPhone, iPod Touch or iPad into a home environmental controller.

“EvoAssist can be set up to facilitate a wide range of everyday tasks through infra-red and RF radio control including answering telephones, opening curtains, raising alarms, unlocking doors and changing television channels,” said Edd Grinham, marketing manager of RSLSteeper’s Assistive Technology division.

“EvoAssist is much faster and more responsive than any other system I have tried, and even though I rely on the voice feedback most of the time, the screen on the iPad can be easily seen, even at long distances,” added Nikki.

“I love the unlimited telephone book, which for ease of use I’ve had divided into friends, family and business, and being able to select speakerphone or headset has at last given me the ability to make a private phone call.

“It’s these little touches that have the biggest impact. In a nutshell, I love the fact that I can put my own stamp on how the system is set up and have it tailored specifically to suit me and my home.

“I’m also comforted by the fact that EvoAssist will continue to give me a measure of independence as my disability advances, which is vital for someone with a degenerative disability.

“Hopefully, in time, it will also enable me to operate other apps available in the iTunes library such as turning the pages on an ebook reader app.

“The possibilities are endless. This is just the tip of the iceberg and that’s the beauty of EvoAssist.” ■

www.assistive-technology.co.uk

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The autism-friendly office

People with autism have special skills, says Ray Piggott: he talked to employers who say that with a few changes to the working environment they have a lot to give

In the TV thriller '24', when Jack Bauer gets himself into a pickle, he often relies upon his colleague Chloe O'Brian to cover his back and extricate him using advanced information technology.

Online, many viewers have discussed whether the character of Chloe has been written as a person with high end autism, possibly Asperger's Syndrome.

Clues include Chloe's high intelligence, limited social skills and spectacular performance in her role as IT supremo.

Back in the real world the National Autistic Society (NAS) reports that only 15% of adults with autism are in full time employment, 26% of graduates with autism are unemployed – the highest percentage of any single disability group.

Employers though might be missing a good opportunity to recruit reliable, talented individuals, particularly in the field of software development and IT systems.

Repetitive work requiring accuracy, such as data input and quality systems, play to the strengths of many autistic people. For individuals, the rewards of employment are not purely financial and being able to participate in work is of immeasurable personal value.

German firm SAP, the developer of enterprise application software, has a clear strategy to employ one million people with autism worldwide as software testers, programmers and data quality assurance specialists as they are methodical with a great attention to detail.

Luisa Delgado, member of the Executive Board of SAP AG, Human Resources said that as a result productivity and cohesiveness in key areas has increased. SAP Africa has recently been recognised as Africa's best place to work by Top Employers Institute accreditors.



Chloe O'Brian is Jack Bauer's aid in the TV series 24

"The value of people with autism in the workplace is increasingly being appreciated, as a greater commitment to valuing diversity moves from rhetoric to reality," says Shervjeet Garcha, head of Birmingham's Advance2work programme for people with disabilities.

"We have found that if employers give people with autism a chance to demonstrate their abilities at work, outside the usual interview selection process, they become aware of how people's autism traits can complement 'neuro typical' colleagues and benefit their business aims."

The Autism Act 2009 was the first ever disability specific act. From this came statutory guidance to the NHS and local authorities to devise an Autism Strategy that aimed to ensure that people with autism have access to public services and appropriate support, including access to jobs.

These strategies are being developed now across the country and will include action to provide information and advice on autism for employers.

In his foreword to 'Untapped Talent', a practical guide to employing people with autism published by the Department for Work and Pensions and the NAS, Lord Freud, Minister for Welfare Reform is clear that making business environments more 'autism friendly' is not about meeting corporate social responsibility objectives, but about tapping into and seeking out the most talented individuals for a role.

Positive personality and employment characteristics in autistic people are problem-solving skills and attention to detail, high levels of concentration, reliability and loyalty, technical ability and specialist skills, detailed factual knowledge and excellent memory, high retention levels in post and resourcefulness.

Untapped Talent highlights three UK companies as successful case studies in employing people with autism. Ciaran is a successful data manager in the compliance section of Norton Rose's Partnership Office with a good eye for detail and the ability to concentrate.

At Goldman Sachs, Jonathan describes himself as the 'go-to guy' for the information used in every single internal and external presentation and George at Hao2.eu Ltd first joined as a digital projection assistant.

Within a year he was promoted to a sub group team leader role. Integral to George's success were flexible working hours and location, structured objectives,

frequent feedback and personal development sessions; and training on presentation, team working and networking skills.

The Government Office for Disability Issues has introduced 'Project Search', a hosted internship programme that helps disabled people secure and keep paid permanent jobs.

It is particularly suited to people with moderate and severe learning disabilities or autism, and others who can benefit from partnership working to help them into work.

A college tutor or school teacher and job coach run a year-long programme of work training for 12 people via a series of work placements in a host employer organisation.

Managing an autistic person's integration

To benefit from the vast pool of potential talent, 'disability confident' employers will recognise the characteristics of autism and how reasonable adjustments might be made to maximise a person's successful integration into the workforce.

In reality this flexibility involves little or no cost and is mainly about accommodating people's preferences, working styles and levels of social skills and anxiety.

Prime examples are clear and unambiguous communication, clearly stated working practices and expectations, consistency in structure and routine and a response to an individual's personal preferences.

In addition people with autism may need access to a quiet space for rest periods, avoidance of dealing with strangers or external phone calls and flexible hours to avoid rush hour travel.

People with Asperger's might struggle to join in water cooler chat and might not come across well in a traditional interview; but there is strong evidence of their application to tasks, including those requiring high levels of intelligence, attention to detail, independent working and proven reliability as employees.

Employers may feel patronising in designing repetitive work for people, whereas for some this provides exactly the structure and routine that they need to thrive and contribute.

If an employee is comfortable with colleagues knowing about their autism, and invariably they are, managers should facilitate a culture of autism awareness through formal and informal training.

The NAS website gives examples: if the person seems aloof or uninterested in talking to colleagues, or often says the wrong thing, if they try too hard to fit in and irritate colleagues by seeming to muscle in on a conversation, be patient, and explain the boundaries if necessary.

Understanding autism is equally interesting for those who are affected. It is an important part of who they are

and it is with them for life.

Strategies, understanding and support does help life go more smoothly.

Penny Andrews, one of 100 ambassadors helping to promote NAS's 'Undiscovered Workforce' campaign says: "Now that I understand more about myself and my autism, I want to raise awareness among employers of what it is; that it isn't a bad thing, just a different thing. I would love a job that took my skills and harnessed them, because of who I am, and what I am, rather than in spite of it."

President of the NAS, the actor and baker Jane Asher, champions autistic employees. "People with autism tend to be very reliable and punctual. They like routine and most won't mind doing repetitive tasks. Many are very good with maps and figures. They are usually scrupulously honest – they just don't have the guile to be anything else."

While specific IT software and hardware plays a minor role in supporting autistic people in the workplace, in comparison with educating colleagues, job structures and organisational culture, some tech solutions may assist.

UK firm Synaptic has developed a range of accessible apps for smart media. Ken Bridge, sales director, says: "We initially developed our products with visually impaired users in mind but customer feedback is indicating that people with autism also find our software meets their needs.

"The clear designs are straightforward to use and appeal to people who prefer an uncomplicated, no nonsense interface. For this reason we are trialling our tablet and smartphone apps with the autistic community, many of whom are highly productive in their own work environment."

Bringing things bang up to date, the *Huffington Post* and many others worldwide, reported that Californian teenager Catalin Voss has developed software that can recognise facial movements like a smile, a frown or raised eyebrows

With the release of Google Glass, Voss, whose cousin is autistic, saw a light bulb: a tool that could help autistic users identify facial cues in real time.

Glass could provide audible prompts to the wearer indicating whether the person in view is demonstrating emotional signs such as boredom, frustration or amusement, which an autistic person might otherwise be unable to interpret.

Whether in Bauer's fantasy world of counter intelligence or in the real world of GCHQ and Goldman Sachs, it is clear that the true value of autism in the workplace is a force not to be ignored. ■

Ray Piggott is director of Business Development at Queen Alexandra College, Birmingham.



Life beyond sight loss

“Blind Veterans UK provided me with so many useful gadgets and taught me the skills to use them. They’ve helped me cope with my sight loss and regain my independence.”

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Seen and heard

AfterShokz sends sound through cheekbones

Making your way around can be tricky when headphones block out sounds that signal danger.

AfterShokz open-ear headphones allow users to hear sounds coming from their headphones and their surroundings, simultaneously.

This improves the safety of vision impaired people when they are outside and connected to their music, friends or using mobile applications for orientation and navigation.

The headphones sit in front of the ears, keeping them open, while delivering stereophonic sound through the cheekbones to the inner ear.

This allows users to hear ambient noises such as approaching pedestrians, traffic, and road crossing signals, car horns and other sounds.

AfterShokz features “patent pending military special ops bone conduction technology,” says the manufacturer.

The headphones are lightweight, sweat and water resistant. They feature an on/off switch, volume control, and an in-line mic.

They also sport a micro USB charging port, and a 3.5mm gold plated standard connector that fits all smart phones, iPhones, iPods, iPads, and MP3 players, a water repellent storage tote, and they come with a two year warranty.

www.aftershokz.co.uk

RiVo could be a key to easier phone use

Smartphones are a boon, but those wanting to write in braille must connect a large and expensive display to them.

Disability Now correspondent Ian Macrae may have found an alternative in a mini keyboard called RiVo, which is produced by Korean company Mobience.

The credit card-sized device has 20 keys on it and can be connected to iOS and Android phones via Bluetooth.

RiVo can be operated in either a conventional alphabetic mode or using smallQWERTY, an app that functions like the texting on old mobile phones.

In some respects the RiVo is a step back from the



Recent months have seen a surge of new products aimed at people with vision impairments. We bring you some of the more innovative ideas on display at Sight Village and other shows

gesture controls of smartphones and tablets, but its convenience could be worth the price.

“This little gadget will definitely change the way I work with my iPhone, particularly when on the move. It’s very simple, for example, for me to find, open and consult my bus timetable app on the street without taking the iPhone out of my pocket,” concludes Macrae.

And that’s a bonus when many vision impaired people are nervous about waving valuable iPhones around in public.

RiVo costs £80 and is distributed in the UK by comproom.co.uk

<http://www.mobience.com/>

VisionAid has magnifiers for specific eye conditions

VisionAid has introduced a CCTV magnifier that comes in versions designed for different eye conditions.

One model of the company’s VEO desktop system – the VEO MD – caters for people with macular degeneration, another – the VEO RP – supports those with retinitis pigmentosa and a third – the VEO Vario – is for users with any kind of vision impairment.

The Veo models, made by the German firm Reinecker, are available in three different screen sizes: 19, 22 and 24 inch. The top of the range Vario model can capture an entire A4 page and magnify it by up to 100 times.

The Veo MD can magnify up to 40 times, while the Veo RP can increase the size of an object 20-fold.

Veo’s camera is equipped with a lighting system designed to eliminate reflections, shadows and glare, enabling users to read material printed on high gloss paper.

Veo magnifiers can be controlled using either a three button control or simplified, one button control and they cost from £1,745.

www.visionaid.co.uk



Dolphin shows Guide at Sight Village

Visitors to the London Sight Village exhibition were the first to get their hands on Dolphin’s latest Guide software.

Guide version 8 provides simple access to the web for older people with sight loss and it follows hot on the heels of version 7, which was introduced in March this year.

Then Dolphin re-did the interface with brightly coloured icons on the main menus and new startup and shut down sounds.

By default, Guide starts up with its classic look and feel, but users can choose to switch to the new Guide theme if they wish.

The upcoming Guide version 8 includes a brand new web browser for exploring the web.

Users are greeted with friendly voice announcements, and a new welcome page featuring tips and links to get them started.

They can explore web pages by simply pressing the up and down arrow keys or a number of short cuts, such as the letter 'P' on the keyboard, which instructs Guide to start reading the next paragraph of text.

Guide version 8 also looks for simplified versions of websites to help make surfing the web easier.

Dolphin Guide can help with regaining independence and confidence by providing simple step by step computer access for the estimated two million people in the UK who are blind or partially sighted.

"Anyone of any age with any level of sight loss can use it straight away," says Guide user Zena, who lost her sight six years ago. Zena regained her independence by using Dolphin Guide to keep in contact with family and researching recipes online.

Guide costs from £475.

www.yourdolphin.com

High visibility keyboard boosts typing accuracy

Many people struggle to see standard keyboards, but Dolphin has come up with a large print, high contrast keyboard designed for people with partial sight.

The QWERTY keyboard also has 'quick buttons' to magnify and speak documents, and a number of buttons that can be used to operate the company's SuperNova screen reader and magnification software.

It connects to computers via a USB plug and works with standard Windows desktops and laptops. The Dolphin keyboard is designed to be simple to install.

The keys are a standard size, so moving to the Dolphin keyboard from other Qwerty keyboards is straightforward, says the company.

There are 18 dedicated buttons arranged in groups around the top and left side of the keyboard. The buttons are shaped, making them identifiable by touch.



The buttons can be used to magnify text and images, change colour scheme and select magnification views including split screen, lens or fixed window.

The keyboard has buttons to call up the Supernova control panel to change other settings, access a selection of podcasts and news feeds or to get help using applications.

Dolphin says the high contrast large print letters improve accuracy and confidence when learning to type.

The keyboard costs £49 (ex VAT).

www.yourdolphin.com

Touch Palette plays audio recordings

Next year Mantra Lingua will be launching a device that can play audio recordings by touching paper placed over a touch-sensitive surface.

The lightweight Talking Touch Palette will play music, audio books and other recordings stored in up to 8 gigabytes of memory.

Play back is triggered by touching one of 2,000 'sound spots' on the A3-sized playing surface.

"Children can create their own project work and add audio and video to make A4 and A3 fully interactive paper-based school work," says Mantra Lingua.

"You can use pdfs on a particular project by printing the picture and then recording facts for your students to listen.

"Students can also record their own information onto the paper and even include video or music to create a rich project."

The £199 system will be launched at the BETT education show next January.

Mantra Lingua has produced a number of products based on voice technology. Its PENfriend system (pictured right) is used to play back descriptions of everyday objects from tiny, micro barcodes printed on labels.

The RNIB, which sells the product, has produced labels for 12,000 different items. Audio descriptions can be recorded in a user's own voice.

PENpal is another Mantra Lingua product. Aimed at children between the ages of four and nine, PENpal detects sound spots on a page or a poster and plays back whatever audio has been pre-recorded: stories, questions, answers, quizzes, music or sound effects.

PENpal stores audio files downloaded from Mantra Lingua's FreeLINK service which can then be used to read aloud our books, charts, posters, activity packs and learning games.

<http://uk.mantralingua.com/>



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Where in the world?

Location technology helps disabled people navigate the world safely, but some people are concerned about its implications for personal privacy

Location, location, location is the estate agent's mantra. And it looks as though technologists have taken the slogan to heart with a flood of services and devices that track people, provide directions and even help them find lost items.

The global positioning system (GPS) and wi-fi networks have been used for some years to help blind people when they are on the move by providing them with information and communications.

However, these technologies are not accurate enough for the 'micro' navigation needed by a blind person to find a door, for example, or make his or her way around a shopping centre.

Researchers are working on alternative means of navigation.

In Japan, for example, a team at Keio University has developed a prototype system for use indoors in which codes are embedded in the rays from overhead LED lights and picked up by a device carried by a blind person.

Data from the coded light source enables the device to look up its position in a database and relay directions to the person who is using it.

Another group in France is aiming to exploit technology developed to aid robots to find their way around.

Edwige Pissaloux and colleagues at the Institute of Intelligent

Systems and Robotics at the Pierre and Marie Curie University have put two cameras on either side of a pair of glasses.

The cameras generate a 3D image of the scene. A processor analyses the image, picking out the edges of walls or objects, which it uses to create a 3D map.

The system's collection of accelerometers and gyroscopes – such as those used in robots to monitor their position – keeps track of the user's location and speed. This information is combined with the image to determine the user's position in relation to other objects.

The system generates almost 10 maps per second which are transmitted to the handheld Braille device and displayed as a dynamic tactile map.

In another development, software that predicts how far a robot has travelled based on information from its on-board sensors is being modified to track a person's movements based on their stride length.

The low-cost system, being developed by Eelke Folmer and Kostas Bekris at the University of Nevada in Reno, would help blind people navigate around buildings using just a smartphone.

The navigation aid uses freely available 2D digital indoor maps and the smartphone's built-in accelerometer and compass. Directions are provided using synthetic speech.

GPS tracking is increasingly being used to provide telecare; particularly to alert guardians if someone strays too far.

Development of tracking for telecare has been spurred by £22m of government funding for dementia research projects including investigations into how much longer a person with dementia can live independently with the aid of technology.

A number of low cost smartphone apps have now come on the market. The TrackYour app, for example, enables carers to follow tracker wearers on their smartphones.

The software not only pin points the whereabouts of the wearer but also provides instructions on how to find them. The company's trackers include a fall detector and an SOS Button, which an elderly person can press to raise an alert in the event of needing assistance

In talk mode, the tracker enables its user to talk to their carer.

This type of tracking does not always get a good press. Earlier this year Sussex Police raised eyebrows when it announced



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it planned to be the first force to fit people with dementia with a tracking device.

Sussex Police have bought 15 Mindme GPS tags that can be worn around a patient's neck, clipped to a belt or attached to a set of house keys.

The Mindme devices are monitored by Chichester Careline, which runs a 24 hour support service for vulnerable people and is run by Chichester District Council.

The device sends details of its location to the Mindme website every four minutes and is seen as a way of helping police who are called out to help find missing people who have dementia.

The police say the tags, which cost £27.50 a month including the monitoring service, are a more efficient, cost effective way of caring for a vulnerable group of people.

However, one campaigner has criticised the scheme as barbaric. "It looks at the problem in the wrong way," Dot Gibson general secretary of the Pensioners Convention told the Argus newspaper.

"If you've got people in the community who are so bad that they are wandering off at night and are not safe, they should be properly cared for, they shouldn't be tagged.

"It's a crude form of monitoring when the issue needs a much more detailed response than this. This is a back-of-an-envelope response."

Eileen Lintill, cabinet member for leisure, well-being and community services at Chichester District Council, said the devices give vulnerable people and their relatives peace of mind.

"Hundreds of thousands of people across the country have dementia. This solution gives both those with dementia and their families the confidence and reassurance they need.

"The latest model also allows customers to speak to us directly by pressing a button.

"This can be used by anyone who wants to maintain their independence, but have the reassurance that someone is always around to help them."

Motability was also accused of invading the privacy of



Spies in the sky

There are two main ways of pinpointing someone's whereabouts: GPS and wi-fi. The global positioning system (GPS) is a network of 24 orbiting satellites that beams radio waves to individual GPS

receivers.

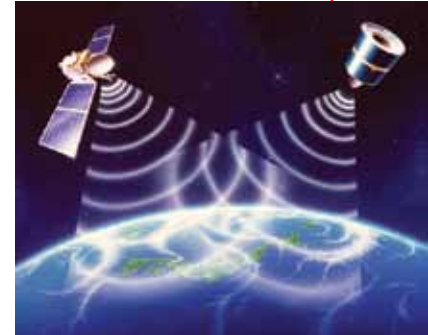
Signals from four satellites are enough to allow a receiver to work out its position.

Radio-based wi-fi that connects phones, computers and other devices to the internet

can also be used to work out where those devices are.

Two large databases log the whereabouts of individual wi-fi access points. From information about which networks an individual device can 'see', the system can work out where it is.

Digital devices use a combination of these two methods for locating handsets, although wi-fi location uses up less battery power than GPS.



disabled people after it began fitting tracking devices to some cars leased under the scheme.

The organisation said it had introduced the new measure to combat fraud: only people who live in care homes or have an insurance policy that allows anyone to drive their car will have trackers in their cars..

Motability says it expects to fit location trackers in fewer than five per cent of the 600,000 cars that are provided by the organisation.

Ruth Bashall, a prominent disabled activist, and a user of the scheme for more than a decade, has called on Motability to review its policy.

"The compulsory fitting of location trackers is a potential breach of the right to privacy and to justice under the Human Rights Act, and potential discrimination under the Equality Act," she says.

Others argue the benefits outweigh any concerns about criminalising the people who are being monitored.

"Making smarter use of technology to help people manage health conditions and stay independent should be encouraged," says Michelle Mitchell, charity director at Age UK.

"This can include devices that help older people suffering from dementia to continue to safely go about their daily lives."

But the message is clear: no one should be forced into using technology if it is not right for them. ■

It's a slam dunk

RGK's business grew out of its founders' enthusiasm for wheelchair basketball. Greg Eden and Russel Simms explained how it happened in this recent interview with Management Today

We started the business in 1988 with another friend Keith (who subsequently left RGK in 1992). We were all three originally able-bodied people who had life-changing accidents in our twenties.

Greg [left] had a motorcycle accident, Russel [right] had a car accident and Keith had an industrial accident: spinal injuries; all paraplegics.

A big part of rehab was sport. We were sporting people before the accident so we just changed to wheelchair basketball, and got on with it.

As our basketball careers grew (they are both ex-GB wheelchair athletes), so did our opportunity to start a business – we knew we needed better chairs to play the sport.

The wheelchairs we used then were everyday chairs that had no performance design. We'd get to our training sessions and start taking bits off the chair to help us perform better and a lot of people wanted to know if we could do it for them.

What was really difficult was knowing we wanted to

make a wheelchair but not knowing how we were going to do it. To begin with, we sold wheelchair tyres and accessories, and that gave us some of the finance we needed because we didn't have a pot of cash.

We never thought about getting anybody to invest – look at who we were: a bunch of young lads with this

crackpot idea. Bank borrowing was difficult at that time because we had no equity.

Also, it's not like today, with the media and the Paralympics, when you talk about wheelchair basketball, people have an idea what it is. Then, very few people did.

Our big break was when we met Brian Upright, who ran a little engineering company in Birmingham, which built our first frame. Brian is a clever

man who is always open to suggestion and would always listen.

We would go to him with what we wanted to do and instantly the lightbulb would come on. He was pretty much our only constant supplier from start to finish, right up until he retired. He helped us become the £3m business we are today.

Greg drew our first chair and got a couple of his colleagues to do some proper engineering drawings. That got us a long way because we had something tangible to show people.

It was a different world back then. At some of the other manufacturers we tried, we were referred to as 'the wheelchairs'. We'd get there, knock on the door and we'd be throwing stones at the windows to get in because we couldn't get over the steps.

We'd go in with a great idea but very quickly we'd become the charity case and that was the way so many people saw us. They couldn't see the market and they couldn't see the opportunity.

They didn't understand that there was a whole other culture of emerging athletes in wheelchair sport, who today are taken seriously – we see them in the honours list, in the London Marathon, in the Olympics. ■



Photo courtesy of Edward Shaw

This year RGK celebrates 25 years manufacturing and designing its own wheelchairs.

In that time it has produced over 25,000 bespoke chairs. The Burntwood, Staffordshire firm's latest model is the £2,350 Tiga.

For the past 15 years the company has supplied the British Wheelchair Basketball team with sports chairs, prompting six other national teams to follow suit.

Earlier this year wheelchair firm RGK introduced its Smart Drive, an electric motor that gives an ordinary wheelchair a helping hand when it is climbing hills.

The speed booster, which has a small extra wheel that attaches to the back of a daily-use wheelchair, is the latest in a line of innovations from the company.

The gizmo games

Mark Davidson finds that behind the sweat and tears, technology is playing an increasing part in disabled sport

Paralympic sport has come a long way since the days when athletes would compete in their everyday wheelchairs.

Now technology is being used to give competitors even the smallest advantage.

The London 2012 may be remembered for being the greatest games ever to be staged by the International Paralympic Committee with the capacity crowds watching memorable performances by all the athletes on show.

However, many of the sportsmen and women relied on their equipment to give them an edge in their events.

For example, companies such as Draft Wheelchairs make custom-built racing chairs for many competitors including Dave Weir, Shelley Woods, Mickey Bushell, Marieke Vervoort and Josh Cassidy, along with other UK and international athletes.

They supply most of the Great Britain rugby team with their chairs, Tom Agar and the GB rowing team with their rowing seats and Rachel Morrison with her hand cycle.

In the inaugural Prudential London bike ride held in the capital this summer there were a number of hand cycles on display with a demonstration race taking place in the Mall.

The sport is primarily aimed at those who have no, or limited mobility in their lower limbs.

Competitors racing in hand bikes are in a seated position and hand cycles are powered by the arms rather than the legs, as on a normal bicycle.

Most hand cycles are tricycle in form, with two coasting rear wheels and one steerable powered front wheel, giving extra stability. Despite usually having three wheels, they are also known as hand bikes.

Brake levers are usually mounted on the handholds, allowing the rider to more easily use their torso to help

propel the cycle. The entire crank assembly and the front wheel turn together, allowing the rider to steer and crank simultaneously.

Other sports require different modifications to equipment. Wheelchair Rugby, or Murder ball as it is also known, requires a more sturdy type of frame as it is very much a contact sport and it is not for the faint hearted.

It is played in a manual wheelchair and the rules of the sport include detailed specifications on how they should be designed and built as all players use custom-made chairs that are specifically designed for the game.

Key design features include a front bumper, designed to help strike and hold opposing wheelchairs; wings,



Above: Wheelchair rugby tests technology and players to the limit.

Left: Competitors in the handcycle race in the Mall



which are positioned in front of the main wheels to make the wheelchair more difficult to stop and hold.

All wheelchairs must be equipped with spoke protectors, to prevent damage to the

wheels, and an anti-tip device at the back. These all add up to make these types of chairs more durable than standard models.

In athletics, six times gold medal winning athlete David Weir has a wheelchair designed and built to his exact measurements. It is made from lightweight aluminium and weighs only seven kilograms.

At a cost of over £4,500, it helps David to keep at the

forefront of his sport.

However, as many of his rivals have been able to acquire 'top of the range' racing chairs it still requires David to put in many hours of dedicated training with his coach Jenny Archer to keep him at the pinnacle of his sport.

Others, such as Hiroyuki Yamamoto from Japan, have enlisted the help of Honda to compete at the highest level. He has had his wheelchair specifically designed and built by the car manufacturer at a cost of £26,000.

Unlike standard aluminium models, the frame is made entirely from carbon fibre. It is considerably lighter, but is likely to be more susceptible to fractures in the various components.

Athletes such as Kirsty Grange who compete in the women's T54 category for Great Britain said, "In my racing chair I use foam (which is supplied to me by my uncle who has his own upholstery business) to make my chair even for my legs.

"Although my stump is longer than a lot of other athletes I am missing my fibular bone and so there is also a fair bit of muscle waste, which means I would sit uneven in my racing chair without padding.

"When I was a swimmer for the North West disability squad I had a different limb for poolside, however athletes were not allowed to compete using any extra help, although I never owned one myself I did see some amputees with adapted flippers for 'kick' drills in training.

"The leg I used had two holes in the side, one at the bottom where water could enter and one at the top where water could exit. This was so my usual 'day leg' did not get ruined."

Aside from wheelchair racing, the use of prosthetic limbs by athletes has become an increasingly contentious issue in recent years.

There was controversy between Oscar Pistorius of South Africa and Alan Oliveira from Brazil in the 2012 men's T44 200 metres final at the Olympic stadium.

Oscar claimed the blades being used by Alan were longer than the permitted length, giving him an unfair advantage. The International Paralympic Committee ruled that Oliveira's blades were within the acceptable range for racing.

However, equipment is not limited to established athletes. Rio Woolf, who is only five years old, has had his running blade specially made for him to allow him to play with other children.

He was born with a one-in-a-million bone deficiency in his lower right leg (tibial aplasia), so he was missing the tibia, knee and ankle joint. Due to his story making the national news he was pictured at the Anniversary games alongside his heroes Jonnie Peacock and Alan Oliveira.

His mother Juliette explains further. "The manufacturer is Dorset Orthopaedic and the total cost for



The price of success

Jamie Carter competed at the Paralympic games in the men's 100 and 200 metres T34 cerebral Palsy category.

He has a £3,350 wheelchair made by Draft and it is broken down into the following costs:

Frame £2100; solid seat £60; custom Aero steerer £40; KCNC C7 brake £110; SRAM carbon lever to fit aero steerer £40; carbon wheels costing over £1,000.

Rio's blade is £4,000. It was kindly sponsored by Dorset Orthopaedic who paid for the socket at a cost of £2,500, with a company called Ossur kindly picking up the cost for the blade at £1,500.

"Unfortunately, it is made of carbon fibre and will only last until Rio weighs 20 kilogrammes; he currently weighs 16.9 kilos. The socket needs replacing shortly and lasts anywhere between six to 12 months depending on his rate of growth".

In other sports, standard wheelchairs can be used, in events such as archery for example. Paralympic gold medal winner Danielle Brown uses a support stool to bear her weight when competing in the re-curve archery.

Like many competitors, a few modifications to items purchased off the shelf can make all the difference between winning and losing. ■

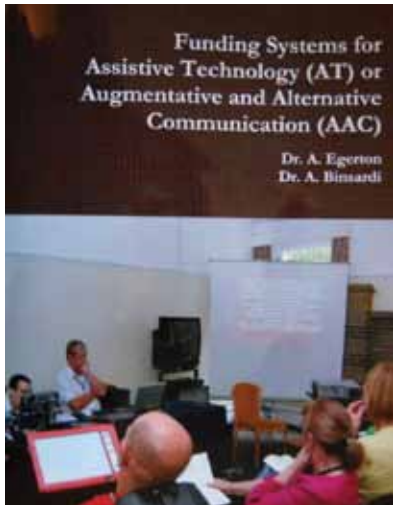
A couple of recently published books look at two challenges faced by disabled people: getting the right assistive technology and learning to be clear about your needs

Speaking up for the silent minority

Silence is golden and speech is silver, but for the 600,000 people who need help in speaking to others, this old saying is tosh.

For them augmentative and alternative communication, able to produce synthetic voices from a variety of different input methods including keyboards and simple on off switches, is vital.

But unfortunately this technology is not readily available to those who need it.



Funding Systems for Assistive Technology (AT) or Augmentative and Alternative Communication (AAC) by Dr Alexis Egerton and Dr Arnaz Binsardi is a scholarly book that sets out to examine the effectiveness of the funding of AAC systems in the UK.

The authors

carried out surveys of users, parents of children who use AAC and assessors – the professionals who recommend solutions.

They found that over half of disabled people with AAC equipment bought it themselves, while 60% of those with AAC equipment had problems searching for funding.

“This fact indicates that disabled end users consider AAC equipment a luxurious product, not a basic need,” commented Egerton and Binsardi.

Survey respondents wanted to see the NHS much more involved in AAC and with the government guaranteeing funding to bring an end to postcode funding under which where you lived determines what support you get.

The book traces the stuttering efforts by successive governments to provide AAC equipment to the 600,000 people in the UK (450,000 of them children under 19) that according to Scope are potential users of the technology.

“In a nutshell there has been a fractured policy in the funding of AAC equipment, which has resulted in an uneven distribution of financial resources to AAC users nationally,” say the authors.

“Individuals whose speech is affected need to have assistive technology from the earliest possible point in their childhood.”

They also need to have the technology updated as their needs change from childhood to adulthood, or as technology improves.

The book reveals a lack of financial security for AAC equipment with child users losing their funding for equipment if they move from one area to another.

Discrimination also exists within the funding system between children and adults, the book says.

Although some of the improvements suggested by Egerton and Binsardi, such as NHS involvement, are already in hand, their book makes it clear there is little time to waste.

The number of disabled adults is likely to grow from 10m to 11.4m over the next eight years: an increase of 14%, according to the Institute of Learning Disabilities.

Funding Systems for Assistive Technology (AT) or Augmentative and Alternative Communication (AAC), by Dr Alexis Egerton and Dr Arnaz Binsardi, is published by Northwest Academic Publications, The price is £20, with £8 from each book sold going to the ACE Centre.

mike@northwestacademicpublicationonline.co.uk

Why are you pretending to be normal?

Disabled people should stop pretending to be normal and be more open about their needs.

This is the message of a new book – *Why are you pretending to be normal?* – by disability champion Phil Friend OBE and colleague Dave Rees.

The book discusses how disabled people can stop simply coping with their disability and start managing it; to become ‘experts’ on what they need in order to be as effective as possible.

“The book is easy to read and provides both disabled people and their managers with interesting ideas and techniques that offer a different approach to managing disability in the workplace,” says Friend.

The authors provide practical tools and techniques developed as part of their personal development programmes that have helped many disabled people deal with the most challenging aspects of living with a disability.

“This book should be read by any professional who works either directly or on the fringes with disabled people from doctors and nurses to social workers and benefits advisors,” says actress Julie Martinez.

“In fact it should be read by everyone including children in school as it offers great insight into the lives of disabled people and how we wish to be treated.”

Why are you pretending to be normal costs £7.50 from www.philandfriends.co.uk/book ■

Whizz Kidz app speeds up wheelchair access

Charity Whizz-Kidz has developed a mobile app designed to help disabled children get access to the right wheelchairs.

The free app, which was funded by the Department of Health, allows young disabled people to begin the application process for vital mobility equipment online.

The app includes videos to show parents how to measure their children prior to assessment in order to speed up the process; and a 'rate and review' service similar to commercial services such as Trip Advisor.

Whizz-Kidz says it uses this intelligence as leverage to drive manufacturers to make improvements and increase user satisfaction.

The app supports Whizz-Kidz's 'Child in a Chair in a Day' initiative to ensure that children in routine cases are able to take their equipment home on the day of their

assessment.

"In the UK we have a crisis of young people whose physical



Coldplay singer Chris Martin with Inspirational Young Person award winner Conor McKenna at the Kidz Unlimited Awards ceremony earlier this month

mobility needs, and subsequently their ability to develop the skills needed for adulthood, are far from being fully met," said Ruth Owen, chief executive of Whizz Kids.

"Thousands of families battle through the health and social

care systems, unable to access appropriate wheelchairs to give their children the chance of a childhood and the independence to have an ambitious future.

"At Whizz-Kidz we estimate there are over 70,000 disabled children and young people in the UK who have the wrong wheelchair for them – if they have one at all. We are singularly focussed on reaching as many of these young people as possible."

For every £1 spent by the charity on the

appropriate wheelchair, says Whizz-Kidz, between £10 and £65 is generated for the economy; as young people gain increased independence and can take up more education and employment opportunities. ■

www.whizz-kidz.org.uk/

Switch could turn 2.5m on to touch screens

A switch adapter that uses iOS VoiceOver to operate iPad, iPod Touch and iPhone technology could allow 2.5m disabled people to operate touch screens.

Many would-be users of touch screen systems with conditions such as multiple sclerosis, amyotrophic lateral sclerosis, motor neurone disease, Duchene's and muscular dystrophy are unable to operate the devices.

Using Pererro, a single switch developed by RSL Steeper, users are able to navigate iOS systems and use the majority of the features of the devices running the operating software.

Applications that can be used in this way include phone, messages, email, web browser and social media.

The adapter, which weighs 6.9g, is controlled through a switch that is connected with a 3.5mm plug. The iOS device can be charged without disconnecting, and works with almost any voiceover enabled app available from the Apple App Store.

The Pererro has been successful in providing educational opportunities to young children who were previously unable to use touch technology, according to a leading supplier.

Technology for Education (TFE), a US-based specialist in learning products for those working with young children and people with special needs, has linked up with RSLSteeper to supply the Pererro, which was launched earlier this year in the US.

"Increasingly, education is being delivered using touchscreen media. Students who are unable to use touch technologies have found that they are becoming progressively disadvantaged in an educational setting," said Jim Rogers of TFE.

"We were very excited when we heard about Pererro because we realised its potential. We've helped hundreds of schools, hospitals, rehabilitation agencies and individuals seeking assistive devices and solutions.

"This gives people the ability to connect with the world again using Apple touch screen devices.

"It opens up a huge range of educational possibilities to students of all ages." ■

www.assistive-technology.co.uk

Tobii turns its gaze on tablet devices

Tobii Technology, the Swedish eye gaze control company, has brought out a product for tablet devices.

The EyeMobile tracks a user's eye movements, enabling them to operate tablets running the Windows 8 operating software such as the Microsoft Surface and Dell Latitude 10.

A metal cradle holds the tablet at the best angle for the user. Beneath the tablet is a small, hot dog-sized black sensor bar, which uses two infrared cameras to locate the exact position of a user's eyes.

Tablet features such as touch gestures, click types and sideswipes have been converted into commands requiring eye movements.

To activate these commands a user has to select the action from a menu by staring at an icon.



EyeMobile consists of the cradle plus PC Eye Go, Tobii's eye gaze system for PCs. It includes a mounting plate for both the DaeSSy and Rehadapt standards and also features a flip out desk stand.

The product is designed for people with arthritis, muscular dystrophy, Rett syndrome, spinal cord injuries and other conditions.

Tobii distributors in the UK are

selling a bundle that includes the Dell Latitude 10 tablet, but customers can also buy the PC Eye Go and the bracket separately if they already have a Windows 8 tablet.

Smartbox, for example, is selling EyeMobile with a Dell Latitude and Grid 2 software for £4,600.

"Providing full 24/7 access to a modern tablet to people with, for example, spinal cord injuries, has the potential to reduce care cost as well as improve their lives," said Oscar Werner, president of Tobii Assistive Technology.

"We encourage researchers and care providers to closely evaluate the Tobii EyeMobile as it opens up avenues that were previously not available to this group of people." ■ www.tobii.com/assistive-technology

Don Johnston gives Co-Writer a makeover

US assistive software firm Don Johnston has given its 20-year-old Co-Writer predictive spelling product a makeover.

The product still uses three types of prediction: word completion, two or three word pattern matching and linguistics or grammar matching.

But Don Johnston has made a number of changes. The company has enabled teachers to restrict features of the software during tests

and introduced improved reporting of students' progress.

Originally designed for Apple machines, the software now works identically on Windows and Macs with the option of using an onscreen keyboard.

Students can use Co:Writer's text to speech to read the web and text in any application.

They can also create personal dictionaries and Don Johnston has

developed a college edition of the software for older students..

Co-Writer 7 has a simpler interface and now supports USB flash drives. Users can also follow a 30-minute tutorial about how Co-Writer works.

In the UK a one to four person licence costs £179 (ex VAT) from Inclusive Technology. ■

www.inclusive.co.uk/co-writer-7-p6760

First Author for writers with special needs

Inclusive Technology now sells Don Johnston's First Author, a software tool that supports writers with special needs.

First Author provides writers with support such as picture prompts, word banks, on-screen keyboard, auditory feedback and other tools to improve the writing experience.

The software handles the

most time-intensive teacher tasks automatically, and allows students to write independently.

Word banks and picture prompts are generated automatically, while writing progress is recorded in graphic form.

First Author is accessible to all students and takes them through a three-step process: choosing a

topic, selecting a picture prompt, and writing with built-in assistance.

Adaptations such as multiple on-screen keyboards, single- and two-switch scanning are built in for students who need additional accessibility.

A CD ROM for up to four users costs £179 (ex VAT). ■

www.inclusive.co.uk/

Predictable overhaul adds touch settings

Therapy Box has overhauled its Predictable word prediction communication app.

The software now has a cursor for editing and allows users to record words and phrases in their own or other people's voices. It has also been optimised to cope with several tasks at once.

Predictable 3 includes two touch settings aimed at making the software easier to use: Force Delay and Key Hold Time Delay.

With Force Delay enabled there is a set delay period before the next tap on the screen is registered.

Key Hold Time Delay activates a set hold period before the next tap on

the screen is registered.

Both options can be customised.

Therapy Box has also changed the software so that back-ups include images, phrases and audio recordings attached to the phrases.

"We have been working hard to incorporate as many features as possible without making the app more complex for users," says Therapy Box.

A bundle consisting of Predictable 3 and an iPad costs £799.

Therapy Box says the iPad is best for people who need a larger screen

because of visual or motor skill impairments and for those wanting to use the iPad for fun as well as a communication aid. ■

<http://therapy-box.co.uk/>



Chooselt! Maker 3 on HelpKidzLearn

Inclusive Technology has introduced Chooselt! Maker 3 to its HelpKidzLearn online software collection.

The latest program allows teachers to edit and play personalised learning materials securely online and then download them to their iPad or Android tablet.

Each activity users create in Chooselt! Maker 3 can be played online using a PC or Mac and can be accessed via mouse, keyboard, touch screen, one or two switches and eye gaze technology.

Chooselt Maker 3 turns photographs, symbols, text and sounds into a variety of activities including those based on cause and

effect, on questions and answers and games and quizzes.

Inclusive Technology says that Chooselt! Maker 3 is an important tool for those learners who respond best to familiar materials, such as pictures of themselves, their families, their classmates and places they know well.

A single use licence costs £49 (ex VAT).

HelpKidzLearn is a collection of software for young children and those with learning difficulties to play online. The software is split into five sections: Early Years, Games and Quizzes, Stories and Songs, Creative Play & Find Out About. ■

www.helpkidzlearn.com/

Briefs

Deaf students get signing support

Deaf students applying to university now have additional support from UCAS, the organisation that handles applications to higher education. The organisation has produced seven new videos available in British Sign Language (BSL). UCAS introduced the videos following a request from the Deaf Education Advocacy Fellowship (DEAF). UCAS is also working with the Royal National Institute of Blind People (RNIB) to improve online accessibility.

www.ucas.tv/ucas/video/5jsqP

BenQ's flicker free LED monitors

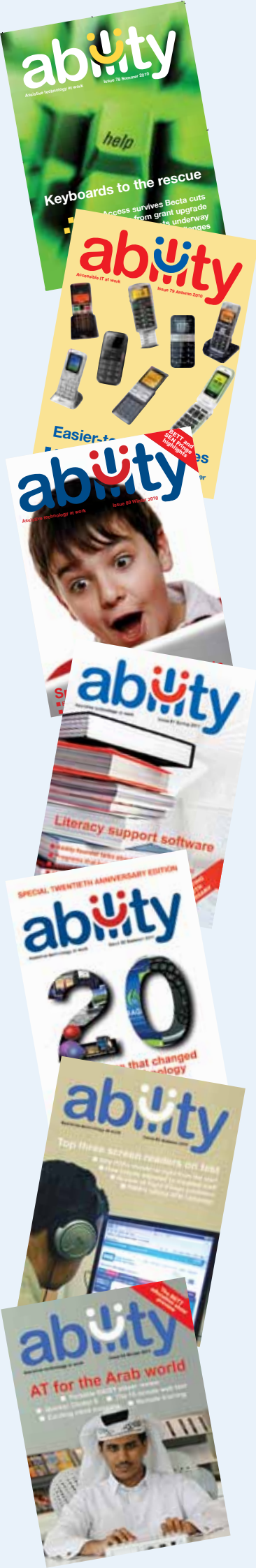
The LED monitor manufacturer BenQ has produced 14 flicker free monitors. The company's screens, measuring between 20 and 27 inches, are aimed at reducing eye strain caused by flickering. Flicker, or flashing effects occur as the LED backlight controller of a monitor adjusts to the changes in brightness level. BenQ uses a direct current system to eliminate flickering.

www.benq.co.uk

HumanWare's Prodigy magnifier now shipping

HumanWare's Prodigy digital magnifier, designed to replace traditional analog TV systems, is now being shipped by the company. Prodigy has just won a prestigious Silmo d'Or Award in Paris for its innovation in the low vision category. "The Silmo d'Or Award that we just won has a particularly special meaning for us. It is a label of quality recognised by professionals in the optical industry," said chief executive Gilles Pepin.

www.humanware.com/prodigi



ability

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Diary of events

QAC SIGHT VILLAGE LONDON

5-6 November

Kensington Town Hall

This exhibition showcases technology, support and services for people who are blind or visually impaired. Sight Village is run by Queen Alexandra's College in Birmingham.

Fees: None.

Further information: www.qac.ac.uk/sightvillage-london/home.htm

LEARNING DISABILITY WALES ANNUAL CONFERENCE

20-21 November

Newport

Learning Disability Wales' conference this year is all about living at home. Speakers include Steve Barnard from Home Farm Trust who will be looking at how personalised technology can help people become less dependent on others and enhance their quality of life.

Fees: For both days Learning Disability Wales Member £150; non-members £195; people with learning disabilities £52.80; carer supporting a person with learning disabilities £52.80. Single day passes are available at half price.

Further information: www.learningdisabilitywales.org.uk

RECENT ADVANCES IN ASSISTIVE TECHNOLOGY AND ENGINEERING (RAATE)

25 November

Rootes Building, University of Warwick

RAatE 2013 is focused on the latest innovations and developments in assistive technology. The conference includes sessions on posture, mobility, telecare, telehealth, assessment, accessibility, and more.

Fees: Day delegate rate £150. Exhibitor rate £300.

Further information: www.raate.org.uk

OCCUPATIONAL THERAPY SHOW

26-27 November

National Exhibition Centre, Birmingham

Occupational therapy is central to delivering integrated care and improved patient care. With a conference and 140 exhibitors, the OT show is an ideal place for professionals to catch up on the latest ideas in assistive technology. The conference features a talk entitled Technology, love it or hate it, it's here to play.

Fees: None.

Further information: www.theotshow.com/

NADP AUTUMN CONFERENCE: SOCIAL MEDIA AND DISABILITY SERVICES

28 November

The Strathallan Hotel, Birmingham

The use of social media has rocketed and many disability services are trying to engage their students this way. Given the rapid developments in technology and social media, the accessibility of social media may not have been fully considered.

Fees: Members £165; non-members £190.

Further information: www.nadp-uk.org/events

LEARNING DISABILITY TODAY LONDON EXHIBITION

28 November

Olympia Conference Centre, London

Delegates can take part in a seminar programme, interactive zones and an exhibition of some 70 organisations and projects. Over 3,000 people are expected to attend. The keynote speaker is Norman Lamb MP, Minister of State, Department of Health.

Fees: £30. Free for people with learning disabilities, unwaged and family carers.

Further information: www.pavpub.com, Tel: 0844 880 5061 or email info@pavpub.com

BETT

Excel, London

22-25 January

Bett is the meeting place for everyone who is involved in learning technology. Every year, thousands of visitors come to see the latest technology for learning from both big brands and small innovative companies.

Fees: None.

Further information: www.bettshow.com/

INCLUSION, INDEPENDENCE, CHOICE (IIC) SHOW

14-15 February

Manchester Central (GMEX)

The IIC Show is the largest shopping event on disability in the North West of England. Showcasing over 300 exhibitors with thousands of products and services, IIC includes an SEN Zone with ICT, software and resources to support children in their learning.

Fees: None.

Further information: www.iicshow.co.uk/

Contacts

Ability magazine

Editorial, advertising and other enquiries: john.lamb@abilitymagazine.org.uk
www.abilitymagazine.org.uk

AbilityNet

Charity advising disabled people, employers and others on assistive IT. 0800 269545
www.abilitynet.org.uk

GOV.UK

Government site with help on employment, training, education, financial support, transport, rights and other issues for disabled people.
www.gov.uk

Business Disability Forum

Claims to be the world's leading employers' organization focused on disability as it affects business, including recruitment and retention of disabled staff and serving disabled customers.
www.businessdisabilityforum.org.uk

Emptech

A database that provides information resources on assistive technologies, which are designed to help those with specific disabilities work and study. Emptech includes product descriptions, links to manufacturers, suppliers' addresses, as well as other related resources.
www.emptech.info

IT Can Help

Volunteers offering disabled people free local help with computers. 0800 269545
www.itcanhelp.org.uk

Leonard Cheshire

Disability care charity providing support services for people with physical disabilities and learning difficulties. 020 3242 0200
www.lcdisability.org

Shaw Trust

Charity that champions the abilities of disabled people, enabling over 60,000 people per year experiencing all types of disability to make the most of their skills, abilities and employment opportunities. 01225 716300
www.shaw-trust.org.uk

Suitability

Services to help employers fill vacancies and disabled people to get jobs. Part of charity Leonard Cheshire Disability. 0845 671 7173
www.lcdsuitability.org.uk

Employ

Employment services for disabled people and employers, plus other business services, including IT equipment recycling.
www.remploy.co.uk

U Can Do IT

A charity that provides computer training for blind, deaf and disabled people in their own homes. 020 7730 7766
www.ucandoit.org.uk

The end of the road for rights?

Kevin Carey says global digital corporations do not acknowledge disability rights, just market needs

You cannot draw a straight line of progress in the way people with disabilities have been treated, said BBC Disability Correspondent Peter White, commenting on his new radio series *Disability: A New History*.

“... people are quite often more uncomfortable and embarrassed about disability now than they were 100 and 200 years ago,” he said.

I suppose that the Christian ethos cuts both ways, both believing in compassion but exercising it through a patronising ‘top down’ care structure but I guess I would take that rather than the sheer moral illiteracy of many of today’s health and care professionals.

Against that background, I always thought that it was foolish to think that there would be some kind of disability bonus from the Paralympics: I’m treated as ineptly now at airports as ever I have been.

As a blind person I still have to insist on not been rammed into a wheelchair!

It is in this context that I quote White again during the same interview, commenting on access to technology after he had chaired a ‘Moral Maze’ debate on the issue at RNIB’s Vision 2013 conference:

“I don’t think it’s helpful to call it a right as I personally think that rights are a really big thing – the sort of thing that’s worth dying for like freedom of speech ...”

We have, I think, come pretty near to the end of the rights road in spite of the recent passage of the United Nations’ Convention on the Rights of Persons with Disabilities.

As I think I have said before, governments have recognised that

it’s much easier and cheaper to grant a right than to ensure its enjoyment.

When I look down the list of the governments that have ratified it I’m sure that most of them will take what credit they can for signing and leave it at that.

I’ve also said before that a right of accessibility, where there is one, is almost always in conflict with other



Kevin Carey is Chair of RNIB (www.rnib.org.uk), and Director of humanITy (www.humanity.org.uk)

rights, not to mention the commercial duty to make a profit.

The recent WIPO Treaty on the rights of blind and partially sighted people to access copyrighted text has taken 20 years of global preparation and five years of intensive and expensive lobbying and negotiation.

The paranoia associated with digital piracy has to be heard to be believed and there are no signs that evidence to the contrary is making any difference.

Added to this, people with impairments are always in the cleft stick of claiming to be as good as the next person as long as they

get enough help, but in this age of rampant individualism it’s the first prong that’s usually remembered, not the second.

We have to be much more careful than we usually are about anticipating the consequences of what we say about ourselves.

Whatever remains of rights rhetoric is a spill-over from 20th century modernist politics when the writ of governments ran.

We are now up against global digital corporations that acknowledge no rights at all but which recognise some congruence between market advantage and fulfilling the needs of people with impairments.

But if we are to exploit that angle we have to present sound economics rather than mantras about how the whole market will benefit from accessibility features. If that were so obviously true, we wouldn’t have to campaign.

Because charities have always resorted to governments to mitigate grievances, we are not so good at talking the language of global corporations and so we will have to adjust.

I wonder how many economists are employed by the voluntary sector, compared with lobbyists and campaigners.

In the good times it might have been sensible to lobby and hope that somebody else would simply pay the bill; but we are living in harder times.

If recent ructions over the implementation of the 21st Century Communications and Video Accessibility Act in the US are anything to go by, we had better get used to the new environment. ■

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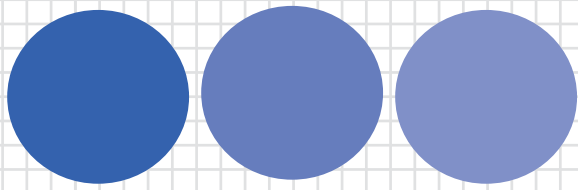
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