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ability

John Lamb explores the impact of innovation on accessibility

Swimming in shark infested waters

Like a shark, information technology has to keep moving: without a steady stream of new products and new ideas – good or bad – it would sink, or at least lose its influence over many areas of our lives.

That is good news for editors of technology magazines, because it ensures a reliable supply of stories; from the sensational to the just plain whacky. But for the growing number of users who need additional help to access IT, innovation is a more complicated matter.

Take mobile apps. On the one hand apps have cut the cost of using assistive technology such as voice output and speech recognition. On the other hand, they have introduced a set of new potential barriers from touch screens to tiny keys (see opposite page).

Similarly, cloud computing makes it possible to record the requirements of each user and deliver documents and services in the format they prefer, but it also poses problems for developers who want to recoup their software investments (see page 25).

Despite advances, too many disabled users still have to endure a stop/go existence in which innovation is followed by hurried efforts to include users disenfranchised by the latest technical advance.

The development of Windows 8 illustrates the point. Touch screens, which are difficult to use for people who cannot see or lack mobility, were initially inaccessible.

Now Microsoft has rejigged its Narrator voice output system and magnification software in Windows 8 in order to bring full accessibility to tablets and phones (see page 8).

Microsoft is to be applauded for its efforts, but wouldn't it have made sense to make these adaptations at the outset?

Many of those involved in developing assistive software favour open source programming in which individuals collaborate on development. A new marketplace called Realise has been set up to speed up the process.

It is tempting to think that awareness of the needs of disabled users is improving, but again the picture is confused. Nowhere is this more obvious than in the contrasting actions of Lloyds and Barclays banks.

While Lloyds invested millions in improving the working conditions of its employees last year by streamlining the way it provides adjustments (see page 15), Barclays has failed to take into account the need of its deaf customers for alternative forms of telephone banking (see opposite page).

Keeping up with a fast swimming fish is an exhausting and complicated matter. ■

Accessibility overlooked in apps gold rush

The gold rush mentality that has characterised the meteoric rise of the mobile app means that accessibility can be ignored, warns a just published study from the One Voice for Accessible ICT Coalition.

However, the study – *Moving together: mobile apps for inclusion and assistance* – shows that there is much that organisations and developers can do to make their apps more accessible.

"App accessibility is currently very mixed, ranging from extremely inclusive to disastrously unusable," says the study, which contains advice for device manufacturers, app developers, retailers and schools.

The groundbreaking research, which includes a seven step guide to creating mobile apps, argues it is vital to build accessibility in from the earliest stages of the design process.

The study reviews the accessibility features of the main mobile operating systems and the key issues involved in accessibility.

There is no such thing as full accessibility for everyone, the authors Dan Jellinek and Peter Abrahams conclude.

"The main problem with making accessible apps is the number of platforms and devices that are out there, and the fact that you might

need to make a slightly different app for each of them," they say.

The study also reviews the state of the art, highlighting key apps and providing links to websites with more thorough directories of useful apps, many of which include ratings or review systems.

"Adopting inclusive design and providing accessible solutions and technologies for the widest possible user group has proven benefits and ensures you deliver a product that your users or clients want, need and are able to use," says Nigel Lewis, chair of the One Voice for Accessible ICT Coalition. ■
www.onevoiceict.org/news/

Banks called to account over equality

Banks could be breaching the Equality Act by failing to provide accessible phone and internet banking.

Disabled bank customers complained of inaccessible services recently when a campaign by *The Times* newspaper highlighted problems with banks' security procedures. Deaf customers, for example, were unable to use telephone banking because staff insisted on speaking to them.

Call centre employees were not familiar with how to use text relay services, which rely on an operator to translate text into speech.

The newspaper highlighted the case of hearing impaired Jill Hipson who was in the middle of buying a car when Barclays Bank insisted she

drive to her local branch rather than complete the deal over the phone.

Other correspondents complained they could not use emails to make simple transactions with banks such as ordering a cheque book.

"I've written to them many times asking them to make the 'reasonable adjustment' I need to fully access all services," said one deaf person. "They refuse, claiming that email is not a secure form of communication. HMRC has a secure email system for people filing their tax returns online. Surely banks can do the same?"

Around half the members of Action on Hearing loss (formerly the RNID), are unhappy with the way they are expected to communicate with their bank, and can't take full advantage of the banks' services

because of their hearing loss.

The charity also found that banks are failing to provide hearing loops in branches to enable those with hearing aids to communicate over the counter. It surveyed 152 bank branches last year and found that in 52% there was either no hearing loop or it was unavailable or not working.

Blind bank users also reported difficulties using ATMs and the card readers used to verify customers online because they had no voice output facilities.

A disabled person might be able to claim £6,000 for 'injury to feelings' under the Equality Act, if they feel they were treated unfavourably compared non-disabled customer because of their disability, say legal experts. ■

Nigel Holland of Northants took this dramatic picture to win the over 18 years' category of the national On the Move competition for disabled photographers. He used a Canon 400D with a Canon EF zoom lens 28mm - 135mm.

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www.naidex.co.uk/RegisterAbility

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IT pros to get crash course on web access

The Equalities and Human Rights Commission (EHRC) has commissioned an e-learning course on web accessibility aimed at professional developers.

The Web Accessibility Essentials course, which has been developed with the British Computer Society (BCS) and the IT charity AbiliyNet, is aimed at the UK's 1.5m IT professionals.

"It will provide training and support to individuals and companies working in the digital industry and help embed good accessibility practice into the building of all websites," says the EHRC.

Many digital designers and developers are unaware of the difficulties disabled people face in accessing digital services and the obstacles that poor design can create.

The course will set out to explain the problems disabled people face in using websites. It will also describe the legal requirements the digital design industry must comply with and also highlight the ethical and commercial benefits of having an accessible digital product.

Trainees will be given examples of the tools and techniques needed to embed good accessibility practice into the web design process. And they will be told how to test digital products to ensure that they meet the right standards of accessibility.

Learners will also have an opportunity to take an online examination to gain a qualification regulated by the BCS. This will be the first formal qualification available in web accessibility in the UK.

The course, first demonstrated in June 2011, has run into some accessibility problems of its own. It was originally scheduled for introduction in December last year, but was redesigned to replace flash content with content based on HTML code to improve its accessibility.

For an individual the course will cost £25 plus a further £35 for an assessment or £49.50 for both. Discounts are available for organisations (eg, a licence for 500 trainees costs £3,000 bringing the cost down to £6 per person).

The EHRC believes there is potential for similar courses on mobile technology, digital media and apps. ■
www.bcs.org/category/16276

May is deadline for Technology4Good Awards entries

Readers have until May 18 to enter projects to win one of eight Technology4Good Awards.

Run by e-accessibility charity AbilityNet, the awards recognise ways that technology contributes to the greater good in categories such as innovation and community impact, volunteering and fundraising.

Last year Lifelites, a charity that brings digital fun and learning opportunities to 5,000 children in hospices nationwide, won both the accessibility award and the best in show.

Communications Minister, Ed Vaizey and TV presenter, Mariella Frostrup (pictured), are backing this year's awards. The categories are:

- ■ Accessibility
- ■ BT Get IT Together
- ■ Community Impact
- ■ Community Voices
- ■ Fundraising
- ■ Innovation
- ■ IT Volunteer of the Year
- ■ Working Together. ■

www.technology4goodawards. org.uk/

Unmet clinical needs
Central Manchester University Hospitals NHS Foundation Trust (CMFT) and Devices for Dignity (D4D) have announced a collaboration that could lead to the developments of new treatments and technologies to address Unmet clinical needs. "The collaboration will focus on patient dignity and independence – bringing real solutions to areas of clinical and patient need in assistive technologies, urinary continence management and renal technologies," say the partners.

Howell wins uni award
Disability rights campaigner and social media guru, Julie Howell, has won the first University of Brighton Alumnus Award in recognition of her public campaigning for the university, the support she has given students, her championing of diversity and equality issues and her achievements in setting up advocacy websites for people with disabilities, such as the Jooly's Joint website, which is accessed by 60,000 people with MS.
www.mswebpals.org/

Keeping MPs posted
The Parliamentary Office of Science and Technology (POST) is carrying out research into the issues people with disabilities face in using ICT and the prospects of attaining an equivalent level of service with other users of ICT systems. POST researcher Edward Yoxall is gathering information on factors affecting the take up of technology by disabled users.

Dolphin launches SaySo toolbar

Dolphin Computer Access has developed a reading and writing toolbar for dyslexia called SaySo.

The company developed the software as part of the Department for Education funded Accessible Resources Pilot Project, set up to develop resources for students with dyslexia.

SaySo offers a collection of reading and writing features designed by the dyslexic students involved in the trial. It is part of Dolphin's My Accessible School package.

As well as providing SaySo for students to use at school, My Accessible School gives students access to SaySo @ home, and offers teachers tools for creating their own accessible learning materials.

The Accessible Resources Pilot Project improved reading levels in 56% of cases and writing levels in 70% of cases, according to EA Draffan of the University of Southampton, who evaluated the project.

Over 130 textbooks were provided as electronic Word files to the 40 dyslexic and visually impaired students from nine different schools across the North West of England that took part in the trial.

Students could access the files directly, dyslexic students listening with their reading and writing solution, visually impaired students with Dolphin's SuperNova software.

Teaching professionals at the schools also used the same Word files to create Braille, large print, DAISY and MP3 editions of the 130 textbooks.

SaySo includes human sounding voices to read back documents, emails and web pages. As well as reading back text, the software also provides options to save text as MP3 to listen to on a smartphone or MP3 player, and scan in paper documents to have them read back.

The software helps with writing by reading back every word that is typed, allowing users to hear if they have made a mistake and instantly check it. SaySo's spell checking offers suggestions based on phonetic spelling. It also allows pupils to create a personal list of AutoCorrects so that the error corrects itself.

SaySo also checks documents for homophones, or 'soundalike' words. These are words that are spelt correctly, sound the same as other words but mean completely different things. ∎

www.YourDolphin.com/SaySo
www.YourDolphin.com/ MyAccessibleSchool

Windows 8 gets accessible touch screen

Microsoft's Windows 8 operating system, which has a touch screen style of interface, involves important changes to the Narrator and Magnifier Windows accessibility features.

Narrator, which reads on-screen content for the visually impaired, will be more responsive, support more languages and voices, and be

better able to read material from the user interface, says Microsoft.

Microsoft has improved Narrator's performance on web browsing too. "Previously Narrator didn't say much on web pages and it was slow," admits the company.

The software has been optimised for touch screens with a feature called 'exploring' that reads out what a user touches as they draw a single finger across the screen. To active an area of the screen, a user taps it with a second finger.

"Right out-of-the-box with a new Windows 8 tablet, you will be able to press the Windows logo key and Volume Up to launch Narrator and walk through the setup of your machine," says Jennifer Norberg, a senior program manager at Microsoft.

Magnifier has been upgraded for touch screens in an attempt to make navigation easier. When the feature is turned on, a border appears around the edges of the screen.

When a user drags their finger along the border the screen moves in that direction, while plus and minus signs in each corner allow a user to zoom in and out.

There is a preview feature that lets users zoom all the way out to see exactly where they are on the screen. The software also supports pinch zooming.

Users have been able to download free copies of Windows 8 operating system, which comes in desktop and tablet versions, since the end of February.

Both sport a so-called Metro interface, which features tiles that can be moved around the screen, similar to the interface currently used on Windows phone software. Windows 8 is expected to be available in the autumn. ∎

www.forumswindows8.com/ windows-8-download/

Minister urged to act on AAC

The Government is under pressure to make improvements in the way that communications aids for people with speech, learning and communications needs are provided in England.

Charity Communications Matters and technology suppliers' organisations have recently called for action on recommendations from the Bercow Review on services for children and young people and proposals in last year's Green Paper on Special Educational Needs.

Sarah Teather, children's minister, has promised to respond to feedback on the Green Paper soon. "Access to expensive technology is not working properly: we are not getting the care and support young children need," she said.

Speakers at a British Assistive Technology Association event pointed out that the numbers of people who could benefit from AAC had been underestimated.

"It is not a party political issue: no one would challenge that this is not the right thing to do," said Anna Reeves, The National Augmentative and Alternative Communication (AAC) coordinator and manager of the ACE Centre North.

The Bercow Review, published in 2008, recommended that government should create a national Communication Council

Children's minister Sarah Teather promised a response to the green paper

to monitor and support the report's 40 recommendations, and a Communication Champion to promote change and improvement.

Communication Champion Jean Goss has just stepped down at the end of a two year contract. In her final report she said that there had been improvements as a result of the Bercow Review and action plan "but much remained to be done".

"We need to start gathering data and evidence of the impact of AAC," said Reeves.

"What we are facing is a rapid development of technology, but we are in a vicious circle in putting the case for better services. There is a lack of awareness of AAC and as a result an underestimation of need."

Reeves said that government had been lobbied over improvements. "But one of the problems we face is whose responsibility it is? AAC has been batted between education and health departments."

She pointed to research that showed that only one in four regional health authorities had met their obligations to provide AAC.

"If you cannot walk you get a (free) wheelchair, if you cannot talk you cannot get anything," said David Morgan of the British Health Trades Association. ■
**www.rcslt.org/about/campaigns/
bercow_review
www.bataonline.org**

Low cost media player for schools

Children in 350 special schools in the UK who have a problem reading could be offered free media players under a charity project headed by talking newspapers development officer John May.

May has commissioned a low cost media player that can read out scanned text or voice recordings held on a USB stick.

"In a lot of cases these children have no mobility, so one version of our player can be controlled with someone's whole arm using big buttons."

Users create content for the media player, which does not have a name yet, by scanning printed material using the portable Scan2Voice camera scanner. The device can scan a page in a second.

The Scan2Voice, distributed by Techready in the UK, uses ABBYY optical character recognition software to turn text into voice output for the media player. Live voice is recorded using the Newsbridge software that captures content for talking publications.

The system costs a total of £2,000: £1,300 for the Scan2Voice component and £400 for Newsbridge software. Accessible players cost £50 each, while the standard models are priced at £22. ■

Dyslexia Association trials VoiceEye app

The British Dyslexia Association (BDA) has bought an award-winning smartphone app called VoiceEye that creates machine readable codes representing the contents of documents.

Pages of the charity's newsletter will carry a 2.5 cm square VoiceEye image, similar to a QR code, which can be 'read' by a smart phone or a purpose-built reader.

Newsletter readers will be able to download a free VoiceEye app that will enable them to scan the code and transfer the document into their phone where it can be magnified, viewed in up to six different colours or read out using the device's text-to-speech software.

The BDA will produce VoiceEye codes containing up to two A4 pages from Word files or from files created using Adobe's InDesign desktop publishing program.

The codes are added to the pages of text and are output at 600 dots per inch (dpi) using a laser printer. A higher resolution version of VoiceEye is available which can store six A4 pages but it must be printed out a 1200 dpi.

VoiceEye codes can also be sent via social media services Facebook and Twitter.

A single user licence for the VoiceEye creation software costs £350. The cost per licence for five or more users is £250.

"The system works for everyone," says Norman Lilly, of Forcetenco, the original UK distributor of VoioceEye. "Smart phones are now in daily use by a large proportion of the population."

"And because smart phones can have built in text-to-speech they are used by many who have dyslexia or low vision. This makes the VoiceEye code a readily useable system, which gives free access to the material for the end user."

QR codes are widely used to provide links to websites with product information and competitions, and Lilly points to US research which shows that over 6% of mobile phone users access QR codes.

The research by ComScore also shows that users want more immediate access to information rather than being directed to websites by the codes.

"We know there will be a huge demand for VoiceEye because it is more accurate than using a camera and optical character recognition software," says Lilly.

VoiceEye was developed by the Korean government so that citizens could scan official forms into their computers. In Europe it has won an award from the organisers of the BETT educational technology exhibition and from the Vodafone smart accessibility awards.

Forcetenco has just been taken over by rival Sight and Sound Technology. The new owner says it will continue to service and support all the products previously purchased from Forcetenco.

"The merger of the two companies integrates almost 50 years of knowledge and experience, creating a powerful operation in assistive technology for those with visual impairment," says Sight and Sound's chief executive Glenn Tookey. ■

www.sightandsound.co.uk

VoiceEye codes (see above left) can be 'read' by a phone camera

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NHS urged to adopt disability codes

The Information Standards Board of the NHS is being pressed to adopt standards for recording the needs of disabled people by GPs in England.

Accessibility campaigner Howard Leicester, who heads the Disability Needs and Personal Requirements (DNPR) project, is campaigning for the adoption of codes to describe disabled patients' communications and transport requirements.

Leicester has already drawn up codes, based on similar standards developed in Scotland, which could be included on electronic patient records and could be entered either by doctors or online by patients themselves.

"Patients may be facing substandard care and risks of premature morbidity and mortality," he says. "There are no current, nationally-agreed NHS code-sets for disability. Information may be collected locally but it is not submitted centrally."

The former Disability Rights Commission's inquiry into care for those with learning difficulties or poor mental health recommended providing the option of recording patients' access needs so they appear on patient records.

The information would enable the health service to make adjustments such as different appointment times and lengths, text or telephone reminders, accessible appointment cards, telephone consultations and specific waiting arrangements. ■

http://home.btconnect.com/ howardleicester/dnprcorecase.htm

US body aims to boost awareness of inclusive technology

The Assistive Technology Industry Association (ATIA), the US trade body, plans to set up an International Society for Accessibility Professionals to improve the understanding of inclusive technology.

The organisation held a day-long forum at California State University Northridge (CSUN) conference in San Diego at the end of February to discuss what the aims of the society should be and how to set it up.

The move is backed by leading lights in assistive technology including Rob Sinclair, chief accessibility officer of Microsoft, Judy Brewer, director of W3C's Web Accessibility Initiative (WAI) and Andrew Kirkpatrick, group product manager at Adobe Systems.

UK contributors were Sandi Wassmer, managing director of inclusive web developer Copious, and Martin McKay, founder of assistive software company Texthelp Systems.

ATIA says there is a need to significantly increase the number of developers, engineers, business leaders and other professionals who understand what it means for technology to be accessible and usable by individuals with disabilities.

Professionals also need to understand how to implement systems that address these needs, how to procure and acquire accessible technology, and integrate those systems throughout an organisation's infrastructure.

Two of the biggest challenges, the forum heard, are coming to terms with the explosion in technologies and keeping up with the increasing amount of work involved in setting accessible policies and technical standards.

IMS Research forecast that, although fewer than 30 million touch screen devices were sold in 2007, the number is set to increase to over 230 million annually this year. There is no cross platform consensus for an accessible interface for touch devices, says ATIA.

"Policy activities and standards work is increasing worldwide," ATIA added. "With this onslaught of activity, many companies are challenged to keep up with these efforts and to understand them.

"Once aware, the challenge becomes to understand what impact it has on them, how and whether to engage, and how to implement new requirements."

Attendees considered what training and qualifications might be needed by accessibility developers. "Accessibility has grown into a complex and highly

David Dikter, CEO of the Assistive Technology Industry Association

technical expertise," says ATIA. "There is an international need for qualified accessibility professionals in government and corporate environments."

The new Society should be modelled on the International Association of Privacy Professionals, an association formed to promote the understanding of privacy issues, according to David Dikter,

Judy Brewer, director of W3C's Web Accessibility Initiative (WAI)

ATIA chief executive.

ATIA's plans were questioned by some. "I am by no means convinced of the need to create yet another professional organisation," blogged Sharron Rush, executive director of Knowbility.

"My hope is that our community will step back and think long and hard about universal accessibility goals and ask ourselves if this is really the best way to accomplish them."

Rush said that there already was an authority on accessible standards – the World Wide Web Consortium's Web Accessibility Initiative.

She argued that the programme proposed by ATIA was too expensive and said that creating a separate society of accessibility professionals would reinforce the notion that accessibility is something outside of the basic ICT development process. ■

http://www.atia.org/i4a/pages/index.cfm?pageid=4199#Need

Moving accessibility into the mainstream

Sandi Wassmer, a panelist at the CSUN forum, welcomes the opportunity to work with a well-resourced organisation

Sandi Wassmer, managing director of digital agency Copious

The opportunity to bring accessibility into the mainstream, through a well resourced organisation that supports open knowledge sharing and enables the promotion of accessibility within mainstream ICT organisations, is incredibly exciting.

I was delighted when I was asked to participate in a panel at the ATIA Forum event during CSUN that was seeking to explore this very possibility.

Prior to the event, a few colleagues from what is commonly referred to as 'The Tribe' – grassroots web standards and accessibility advocates – expressed concerns about various aspects of the event (http://blog.knowbility.org/content/considering-the-case-for-creating-an-international-society-of-accessibility-professionals/), but I stood back and observed, remaining optimistic.

The event was well attended and there was a mix of technologists, academics, standardisation folk and disability charity advocates, but a distinct lack of tribespeople.

After a few hours of listening to people talk about the prospect of the society, alongside how their organisations approach accessibility, I had concerns. I wasn't hearing much about the things I consider when I ponder accessibility.

Accessibility to me is all about people and how they interact with technology; most importantly for disabled people. Accessibility is about ensuring that they are able to complete tasks as intended for their non-disabled peers.

Instead, I was hearing all about standards, guidelines and technical conformance; all of which are essential in delivering accessible ICT, but these are all part of the solution and since we have yet to fully understand the problem, I wanted to hear more about users, usability and how technology would facilitate task completion.

And then it hit me. Not only do we need to have an international body for the purposes already identified by the event's organisers, such an organisation would urgently need to coordinate and consolidate the many different factions of accessibility.

It would need to seek agreement on what accessibility is and in doing so, deal with the proverbial elephant in the room – drawing the line between what level of accessibility should be included in mainstream ICT and what should be deemed assistive or adaptive technology.

Only then can we start talking about technical conformance and the all important interoperability, but this was not where we were heading, which is ok, as it only further confirmed the need for international cooperation.

In the United States, ICT manufacturing is mandated, so those advocating accessibility within mainstream ICT organisations are mostly engineers who want accessibility to be a component part of the product design and development process, which of course it should be.

This certainly helped me understand why there was such a strong focus on technical conformance. However, as the UK is part of the EU, which is an open market, the UK government cannot mandate manufacturing.

As such, the UK focus is more on rights, policy, procurement and end users, as we are all ostensibly consumers; having no control over manufacturing creates a very different environment for UK accessibility professionals than that of our US counterparts.

In fact, the US is in the unique position to make a wholesale impact on accessibility worldwide, but it is not just a matter of delivering technical solutions.

The initiative presents a fantastic opportunity for all of accessibility's stakeholders to work together, share knowledge, expertise and best practices.

This should in turn make accessible ICT available and affordable.

It is certainly a tall order and will require commitment, patience, tenacity and money, and this is precisely where The Tribe comes in; I have participated in many grassroots voluntary efforts but however noble, lack of resources – both human and financial – have always been their downfall.

If accessibility folk across all disciplines – academics, technologists, designers, standards and guideline creators, policy makers, disability advocates and suchlike, whether corporate or grassroots – can all work harmoniously together, and we have the backing, support and resources to make this sustainable in the long term, then we may just have a fighting chance. ◼

Schools to take charge of technology

In September education comes under the Equality Act for the first time. It is a chance for schools to work together on AT, says Stuart Pattison

The 2010 Equality Act has made huge differences to industry and the public sector with the requirement that reasonable adjustments are made to assist people with disabilities.

The education sector was given a two-year grace period to put measures into place. As always this period has flown by and schools are now faced with having to implement measures for every student with additional needs on a very short timescale.

One of the key elements of the Act, that is a potential minefield for schools, is that a disability has to be measured as if there were no adjustments already made for it.

In practice this means, for example, that a child with Attention Deficit Hyperactivity Disorder (ADHD) who has it fully managed by medication has to be evaluated as if the medication was not in place.

This is a very tricky task for many educational establishments as they have to evaluate not only on what they see on a day-to-day basis but also what could occur at some future date.

Assistive technology offers an effective solution to most schools as 'reasonable adjustments' can be made for students quickly and easily.

There is a vast range of equipment available which means that there is a solution for virtually every challenge, although this then presents the more pressing issue for schools that the sheer number of products makes it very difficult to implement an effective way of working for a child.

There is a very real fear among school staff of getting the wrong product and having to explain how a piece of equipment costing, for example, in excess of £300 does not offer a solution, especially in times of budget cuts.

Realistically the only solution is for co-operation between staff and schools to enable best practice to be shared. There is no problem faced in a classroom that has not been faced before by someone else.

At its simplest this co-operation can consist of school to school contact where a member of staff picks up the phone or email and contacts a colleague at another establishment that has a child with similar needs.

The suppliers of assistive technology too are a valuable source of advice as they know in great detail about their products and can suggest solutions, although it is always worth remembering that they are in business to make money.

Some local authorities such as North Lincolnshire have gone for a more formal solution where a local special school has a library of equipment with well trained staff who are able to offer solutions to schools and lend equipment for a short period of time in order to trial it with students.

Once it has been established that a piece of hardware or software is working the school is then able to buy the equipment at a reduced rate.

The Equality Act is a piece of legislation that affects all schools and staff as reasonable adjustments are made not just for obvious issues such as the child who needs a wheelchair, but for those who cannot use a keyboard as effectively as others or who cannot answer a question as quickly as their peers.

This means that schools have to consider how best to support a great many pupils across the whole age range. Indeed, although the Act only affects children from the age of six upwards, a far sighted school would be putting measures in place from the moment they enter the Foundation Stage.

Although it may seem that the Equality Act is another piece of legislation designed to make life more challenging for staff, it offers schools a chance to work together to ensure that every child in every school gets the provision they deserve. ◼

Stuart Pattison is head of ICT Vision at St Hugh's Communication and Interaction Specialist College, Scunthorpe.
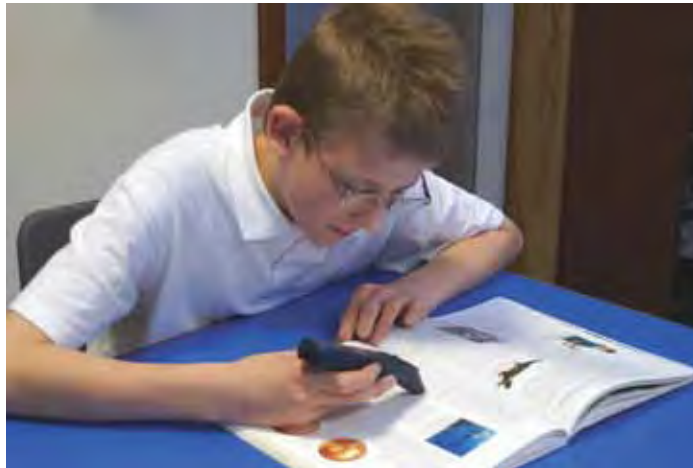
From this autumn schools will be responsible for providing technology such as this pen reader

Making adjustments

Earlier this year Lloyds Banking Group held an open day in London called Grounds to Succeed. *Ability* went along to find out how the bank handles its workplace adjustments

Last year Lloyds Banking Group spent £4.5m on providing workplace adjustments for its workers. The bank has set-up streamlined processes to ensure those who need adaptations get them quickly. It is one of an increasing number of big name organisations that have made arrangements to ensure their staff get the help they need.

"In 2000 we created a strategy consisting of workplace adjustments, a disability network and targeted training. But after four years we discovered we were really lousy at making IT adjustments," recalls Graeme Whippy, senior manager, Group Disability Programme.

"Traditionally IT guys are viewed as the blockers. It used to take months for colleagues to receive their assistive technology," adds Brian Roddick, head of colleague IT services.

"Colleagues with disabilities are less engaged than other employees. Lack of engagement impacts our business; the barriers prevent people giving 100% of their best and we cannot afford to waste the time or talent of our people.

"Last year we spent £4.5m on the adjustments, but it costs £7,500 to recruit someone, so making adjustments saves money."

Graeme Whippy

Taking control of the situation

The main issue was the complexity of the process. Whippy campaigned for an IT accessibility centre of excellence, but it was only when a senior executive – Mark Fisher – was given responsibility for inclusion that it was possible to change things outside IT.

There were four main design objectives, says Whippy: "to simplify the process and create a one stop shop; reduce the reliance on line managers; to meet the needs of the individual; and speed up implementation: take it from months and months to our goal of 20 days."

Whippy simplified the adjustments process by creating a one stop shop that reduced the burden on line managers. He outsourced assessments to charity AbilityNet and handed responsibility for certifying and deploying hardware and software to MicrolinkPC.

Now employees who need an adjustment fill in an online form with drop down boxes to select equipment. The form goes to a triage team. If the request is complicated Lloyds does a telephone assessment. "There are no shades of grey in assessments," says Whippy.

The bank has cut the average time it takes to supply assistive technology from several months to 52 days. The goal in 2012 is to reach 20 days.

Lloyds reports that people like the process. In the latest survey of employees, 87% were satisfied with it and 75% said it had improved their performance.

Lloyds is at pains to point out that the cost of the programme works out at 20p per desk for its 100,000 employees. The average cost of an adjustment is £1,368 per person, including services. The IT component works out at £113 for hardware and £303 for software.

Last year the disability programme handled 20,978 work orders, of which 3,572 were ergonomic: 18.4% of the requests involved providing office workers with chairs.

"What's the payback?" asks Roddick. "We can attract the best talent: we can't afford not to attract talent from 18% of the population who have a disability.

"It's a myth that people with disability take more time off work, but having adjustments in place prevents people from having to take sick leave so there is a preventative aspect."

Lloyds experience has given companies scientific evidence that if large corporations do things in a certain way they will achieve the same result, says Susan Scott Parker, chief executive of the Employers' Forum on Disability.

"This all becomes much easier when we realise the task is to reengineer a supply chain that is delivering hard and soft adjustments to employees and it goes right across the business."

According to Scott Parker a central budget is essential. "Adjustments have been a legal obligation for some time. The task is where and how do you get budgets." ■

No such thing as free software

Realise is a marketplace for open source assistive software that will stop good ideas sliding into oblivion, write E.A. Draffan and Dr Peter Cudd

People tend to think of open source technology as being something that is available for free. But those who pioneered this type of development, such as Richard Stallman, originally had a slightly different notion of 'free'.

Stallman founded the Free Software Foundation with aim of encouraging "the development and use of free (as in freedom) software and documentation" (http://www.fsf.org/about/).

He wanted developers to have access to the code that is used to make the software and also be responsible for its redistribution. The result is projects can be shared, added to and enhanced by the community for the community.

The Realise project team wants to encourage this open innovation for assistive technology by providing a platform for the exchange of ideas in the hope they lead to successful projects.

Projects such as Oatsoft (http://www.oatsoft.org) and EmpTech (http://www.emptech.info) carry information about products that have often been developed by talented technologists, but the software or hardware often slides into oblivion, without the community being aware that they require further support.

This need not happen and we want to raise awareness about the increasing number of entrepreneurs setting up new companies with innovative ideas that could work well in an open market place.

The Realise project team has launched an experimental website (www.realisepotential.org.uk), now sponsored by Devices for Dignity (D4D) (http://www.devicesfordignity.org.uk/), that aims to encourage anyone who has an idea for a useful assistive technology to put it on the site or to comment on the ideas they find already there.

The Realise community has well over 65 members and there are already 36 user ideas posted looking for comments.

There have already been some successes. An AT toolbar (www.atbar.org), that can be used with all web browsers, has not only found its way onto many college and university websites, but is now being developed in Arabic (funded by the Mada Centre in Qatar) with the hope that many other languages will appear in the future.

The toolbar has been developed into an ATkit that is on the Realise marketplace (http://www.realisepotential.org/idea/48) and has been taken up by two developers

who plan to provide a collection of plug-ins for the toolbar. (http://kit.atbar.org/)

A chance meeting with a blind student resulted in the idea of a Spotify App that would work with his screen reader so that he could listen to music online. The idea has been added to the marketplace and a developer has just been found to take it up.

The intention is to develop the app for Window Eyes

Richard Stallman, maverick founder of the Free Software Foundation

which in itself has an open source app store (https://www.gwmicro.com/App_Central/).

Maintaining and updating software and hardware, such as the Tecla Access project (http://mobile-accessibility.idrc.ocad.ca/projects/tekla), is difficult to achieve without financial or commercial input.

Realise can provide links to relevant experts in the subject of open source software and hardware development. Additionally the team have a broad range of expertise in disability support.

Members have their own open source projects and have been exploring several models that have been adopted to enable sustainability, for example charging for services such as installation and training.

They are also considering the freemium model, which provides free basic software but involves charges for extras such as different voices, more successful spellchecking, or other additions (as may be the case with the ATkit toolbar).

The road to open innovation in assistive technology may be a bumpy one, but we hope that with a few successful projects that result in useful products, the Realise marketplace can go from strength to strength. ■

Buttons that find fingers

Allana Grant talks to Adam Duran, a young Stanford undergraduate who has created a prototype touch screen for people who write in Braille

Visually impaired users have been somewhat left behind when it comes to the modern tablet revolution.

Without a voice over feature; slick, buttonless, touch screen tablets are essentially useless to those of us who rely on touch to navigate around a computer interface.

Hope is on the horizon though, in the shape of 21-year-old Adam Duran, a recent graduate of New Mexico State University.

Last summer, Duran and his two mentors, Professor Adrian Lew and Dr. Sohan Dharmaraja, developed a piece of software that enables visually impaired people to write using a standard touch screen tablet.

Adam Duran shows his skill with his prototype touch screen for writing in Braille

"In a demo, Duran donned a blindfold and readied himself before the touchscreen. He typed out an email address and a simple subject line," reported Andrew Myers of Stanford University's engineering department.

"Then he typed one of the best-known mathematical formulas in the world, the Burgers Equation, and followed with the chemical equation for photosynthesis – complex stuff – all as if writing a note to his mother."

Beyond the price difference, touch screens offer at least one other significant advantage over standard Braille writers: "They're customisable," explained Dharmaraja. "They can accommodate users whose fingers are small or large, those who type with fingers close together or far apart, even to allow a user to type on a tablet hanging around the neck with hands opposed as if playing a clarinet."

No standard Braille writer can do this, said Professor Charbel Farhat, the chair of the Aeronautics and Astronautics Department and executive director of the summer programme. "This is a real step forward for the blind," he concluded.

I recently chatted to Duran about his potentially life changing creation and the impact it could have on the Android market.

Allana Grant: You were of course one of a select group of undergraduates from across the US to attend the two months advanced computer programme at Stanford University. Could you explain how this came about?

Adam Duran: I was looking for a summer internship and my department head, at the time, forwarded the Army High Performance Computing Research Center (AHPCRC) application. Once I was accepted it was really a no-brainer.

I knew that high performance computing was becoming a big part of my field – aerospace and mechanical engineering – and I did not want to miss the opportunity to learn something new.

Plus, I had the opportunity to work at one of the most prestigious institutions in the world, Stanford. To be eligible for the programme, we had to have an interest in computational sciences and have a major in the science/technology/engineering/mathematics category.

AG: You were originally challenged to use the camera on a mobile device to create an app that transforms physical pages of Braille text into readable text. Why did the team abandon this idea as being impractical?

AD: The reason we left the optical character recogniser (OCR) was because we felt there was a greater need to pursue the Braille writer.

It was interesting to see how this project evolved from the OCR to the virtual Braille keyboard (VBK).

With the OCR the most obvious question was "how would someone who is visually impaired know where to point the camera?" To help us answer this question we turned to the Stanford Office of Accessible Education.

Sohan (Dharmaraja) made frequent visits to their office to discuss the practicality of the application. It was through these conversations that we discovered there was this need to pursue a writer, not a reader.

AG: Having decided to develop an app for writing instead, what were your main considerations?

AD: After talking with the Stanford Office of Accessible Education, we discovered that there was no practical way for blind users to interact with modern day tablet devices.

For the OCR it was impractical to ask a blind user to point a camera at an object without the aid of a sighted person. We also looked at current Braille input devices and concluded that they were either too expensive or impractical.

With all this considered, we felt confident that we could provide a software solution that allows visually impaired users to type on touch screen devices.

AG: Could you explain exactly how the app functions?

AD: The VBK is a standalone application that allows the user to email, write different typesets and edit their work through audio confirmation.

The VBK has the same input method as a standard Braille note taker and a user who can already type Braille can use this device immediately.

A Braille character is represented by a 2 by 3 matrix. Each element of this matrix, or combination of elements, represents a character.

On a Braille note taker each element is represented by six buttons on which the user places their three inner digits of each hand. Pressing these buttons allows the user to type.

AG: What are the standout features of the app?

AD: The most important feature is the calibration routine. It is unreasonable to expect a blind user to locate buttons on a smooth touch screen.

The keyboard accommodates this by building a new keyboard whenever the user touches their eight typing digits to the touch screen.

So, instead of requesting 'fingers find buttons', the VBK effectively builds 'buttons that find fingers'.

Based on the touch location of the typing digits, virtual buttons of an optimum size and location are constructed. From this, a visually impaired user can very quickly and effectively recalibrate the VBK, should they lose their orientation.

AG: What features could be improved upon in the future?

AD: Our goal is to fully integrate this application with the device's operating system. Only then could it be used to its full potential.

It would be able to interact with the tablet's other screens and perform other basic tasks, like instant messaging. What we currently have is a prototype and is by no means the final product.

AG: We are several months down the line from your competition victory, is the app any closer to being made accessible to the general public?

AD: After the competition things were pretty hectic. Now that everything has settled a bit we will continue to work on the VBK.

AG: Are you going to play a hands on role in furthering this aim?

AD: I graduated this December and I'm a newlywed. I also plan to pursue a PhD in the fall. With so much going on I hope to be involved as much as I can at a limited capacity.

AG: What are the technical considerations for the future?

AD: Like I mentioned before, we want to integrate this application with the operating system. Once this is accomplished, I foresee no technical obstacles.

AG: And legal obligations?

AD: We are currently in the patent process.

AG: How do you see this app impacting on the Braille input market?

AD: I can see this device stand among the other accommodation solutions. But I just want to see the VBK fully developed and in the hands of the people who need it the most. If the VBK can help anyone, then I'm happy. ■

Ghost in the machine

In his book *Ghost Boy,* freelance web designer Martin Pistorius tells the remarkable story of how he overcame locked in syndrome with the help augmentative and alternative communication (AAC). Here he talks to *Ability* about how the technology he uses has transformed his life

What kind of communication aids do you use?

I use a variety of them. I have my trusty alphabet board, which I made. It is printed on an A3 piece of paper which I had laminated. Then I have a Neo2 by Alphasmart. I also have an old PowerBox, but my primary communication aid at this stage is still a laptop computer with The Grid 2 on it.

How long have you had them?

The alphabet board I have used for about nine years now. Although I use it less these days since I got the Neo2, which my wife bought me at the end of 2008, so been using that for about three and a half years now.

The PowerBox I got in 2005, if memory serves, so I have had it seven years.

The Grid I have used since the day it was released. I initially started with WinSpeak and Hands-Off, then got The Grid 1, and later The Grid 2. So if you count the total evolution of the product, 10 years. My laptop has changed a few times over the years though.

How do you find the technology?

My Alphabet board I quite like using. I feel it is more intimate in some respects. Plus being a laminated piece of paper it is very robust and can go almost anywhere. Of course one problem with it is you can't see it in the dark.

So, to solve this problem I bought a little head lamp. However, one of the shortcomings of the alphabet board is you are dependent on your communication partner to be able to spell and follow what you are spelling out, which is not always so straightforward.

There are many people who have great difficulty and simply cannot follow what I'm spelling out. Of course you also get people who follow really well and I can spell very fast. Of course one of the major disadvantages of it is it has no voice output, which means it is to a degree not very effective when communicating with more than one

person at the same time.

The Neo2 I find works well. One of the main reasons my wife got it for me was we found that trying to communicate in the car while my wife is driving with me spelling didn't work that well. It also solves a lot of the problems the alphabet board has, such as people struggling to follow what I'm spelling out.

It has the same issue, no voice output, can't see the display in the dark and you are dependent on your communication partner being able to which is rarely an issue. I find it works well; it is a lightweight, very robust device and the batteries last months.

The PowerBox I used a lot when I first got it, and it worked really well, especially mounted on my Powerchair. However I had a lot of issues with its battery and to be fair the touch screen I found wasn't that good (though probably good for its time).

I found there was a real problem with its calibration and I had to repeatedly recalibrate it and even then it

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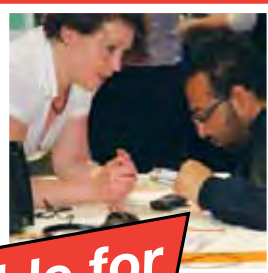
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London: 6th & 7th November Kensington Town Hall

For people who are blind or partially sighted, professionals working in the field and employers, QAC Sight Village exhibitions are essential sources of information and hands-on experience with technology, support services and daily living equipment.

end users employers professionals public sector

wasn't always that accurate. I tended to access it using my SmartNav, which worked a lot better.

Of course using it outdoors was not really possible. I rarely use it these days for a number of reasons, partly because of the battery life and touch screen, but also it is really heavy and bulky. This isn't an issue if it's mounted on my powerchair but as we can't get my powerchair out of our flat or transport I can't really use it.

With the PowerBox being quite a bulky and heavy device it is not really practical to use on my lap in everyday life. I have also grown and developed since first getting it, as have my communication needs.

As far as The Grid goes I find it to be very powerful, using it works really well and the voice output has clear advantages.

What difference has it made to your life?

Well, in short, it not only changed my life but it gave me a life worth living. Being given the means to communicate completely transformed my world, it meant I went from being trapped inside my body, everyone believing I had the mental age of a three month old, to be coming a person again, living and enjoying life.

The devices and technologies I use allow me to function in the world. When I first gained the ability to communicate it was like someone unlocked my prison cell and I was free again.

Do you have the support you need to use the devices?

Umm, to be honest, I have never really had formal support. When I started using Winspeak and just computer-based AAC systems there were no therapists who either knew about them or were willing to help me.

So throughout my time using AAC technology I've essentially been on my own. Initially with my mother reading up and teaching me and then later working it out myself. I'm fortunate in that I am a technical person by nature so I'm very good with technology.

I must add though that Sensory Software (Smart Box AT) have and continue to be fantastic, whenever I have had a problem they were always just an email away. In fact at one point I ended up helping to test some of their products.

How did you fund the communication aids?

With the exception of the Powerbox, which I received though a grant, all my assistive technology has been self funded, which can pose a barrier. You tend to think twice about getting something even though it could really help.

How could your experience as a communication aid user be improved?

I think being someone who uses AAC – well I suppose it's true for all human communication but even more so with AAC – you are to some or other degree dependent on your communication partner.

But that aspect aside, I think it's important that manufacturers use and get feedback from real users, which to be fair I think to some degree they do. Devices have advanced considerably since I first started using AAC technology.

There are a lot of fantastic products available. Text-to-speech has also made great advances, which has greatly improved the understandability of the devices.

However, while a lot of the modern voices have intonation, you still can't really convey any emotion. With natural speech you can say the same word six different ways, changing its meaning by how it is said, but you can't do that with a speech generating device.

I also think, generally speaking, things such as the loudness of the device (often difficult to hear AAC devices in a noisy environment), battery life, the visibility of displays in sunlight, and robustness remain areas that could be improved on.

Saying that though, I also realise that none of these are trivial problems to be solved; often manufactures compromise, for example balancing device weight and battery life (ie shorter battery life but lighter device).

Martin Pistorius' autobiography Ghost Boy *is published by Simon & Schuster.*

www.martinpistorius.com

Screen readers for nothing

Web testers at Shaw Trust, the charity that helps disabled people find employment, have been putting some of the latest 'no cost' screen readers through their paces. Michael Taylor and Tara Owton report on their findings

NVDA for Windows

Non Visual Desktop Access (NVDA) developed by NV Access, is free for users of the Windows operating system, covering Windows XP, Vista, and Windows 7.

The software is also open source, meaning that any one with a good level of programming knowledge can develop the software and submit their modifications to the developers for the next stable release of the programme.

NVDA works with most products, including MS Office Outlook, Word, Excel, Powerpoint and more, including Internet Explorer and other non-Windows programmes such as Mozilla Firefox. However, it does have problems with accessing Microsoft Office 2010.

Tara Owton

With 20 languages at the time of writing, NVDA promises to be a serious contender for one of the more popular commercial packages used on the Windows platform to date.

NVDA can be installed using a talking installer, which means that no sighted assistance is required. This allows the user to customise the software to their requirements and install and run the software independently.
www.nvda-project.org

Thunder

Thunder is a free to use screen reader, but unlike NVDA is not open source. Thunder currently supports Windows XP and Vista.

A person with no sight would have difficulty installing Thunder independently unless they were using a screen reader to navigate to, and activate the download link, as the software will only start to talk after installation and restarting the PC.

The Thunder manual and a recent survey conducted by the American Foundation for the Blind (AFB) indicate that although Thunder will work with Word's main features and Excel, it will not announce the 'to' and 'CC'

fields in Outlook Express Version 6. However, Thunder will work with Windows Mail.

Unlike many other screen readers, Thunder uses a web browsing tool together with Internet Explorer to enable screen reader users to navigate the internet. The difficulties here are that quick key navigation is limited to forms, links, and headings.
www.screenreader.net

System Access

System Access is not an open source screen reader, but it can be purchased for a reasonable cost (less than £300) when compared to other commercial screen readers and can also be used for free.

System Access SA to Go will work on windows XP, Vista, and Windows 7 respectively. Screen reader users can run the software without sighted assistance by launching the website from the 'run' option in the start menu of a windows PC by typing the web address www.satogo.com

Then users can run the software as long as the web page is left open. To customise System Access, users can create a free account and each time they log in, their settings such as the speed of the synthesiser and pitch will be saved.

SA to Go works with MS Word, Excel, Windows Mail, Internet Explorer, and a wide range of applications.

The software could be described as another free alternative to JAWS as many of the short cut commands are similar and, although not exactly the same, the functionality is very powerful and allows paid licence holders to modify any website that may not contain a link title or alt attribute for a graphic.

This will not change the look of the website as a whole, but will allow users of SA to Go more options when browsing the web. From a technical aspect, SA to Go can encounter problems with some internet security software as it includes an ActiveX component, so users

will need to allow this through the security software immediately, or the software will slow down and in some cases crash.

www.satogo.com

Voiceover

Voiceover is a free to use screen reader and works with the Mac operating system.

The plus point with Voiceover is that it comes shipped with version 10.6 and 10.7 of the operating system, so no additional cost is required to use Voiceover.

Because it works for any Mac desktop or laptop computer, it is easy to run and easy to become familiar with the software.

Many of the short cut functions that are used by Windows screen readers, such as navigating via an elements list, is also present with Voiceover and Safari (the Mac web browser), making it easy for screen reader users to navigate the internet independently.

Voiceover will also work with some aspects of Office and for many of the applications on the Mac.

Because Voiceover works purely on the Mac operating system and provides enhanced functionality for many applications, users will need to activate a command that will tell the software to interact and then stop interacting with applications like Word, Text Edit (which is the equivalent of note pad on Windows), and tables.

Michael Taylor

This is something that will be new for Windows users, so they will need to practise it at first.

www.apple.com/accessibility/voiceover/

Web Anywhere

Web Anywhere is a free open source screen reader, programmed by using PHP and Java Script.

Web Anywhere can be used on some mobile devices and, unlike other open source screen readers, can be activated from any operating system.

Web Anywhere can also be activated from any browser and any PC. This is because the software runs from the browser when the web page is loaded, rather than having to install any software, making it truly portable and easy to set up.

Screen reader users can check or send emails, browse the web and view multimedia. Unfortunately the screen reader does not support any applications, such as direct access to MS Word or Outlook, and other options should be used here.

wa.cs.washington.edu

FireVox

FireVox is an add on to the Firefox browser that will read web pages and allow quick key navigation. The software is open source and as a result, will allow users to remap specific keys.

FireVox only supports operating systems that run the Sapi 5 synthesiser, so as a result will not provide support for Windows 2000 or XP. Screen reader users are able to move easily around web pages, and FireVox will now support dynamic content such as Java and Ajax, improving the overall experience as a result.

www.firevox. clcworld.net/ features.html

Orca

Orca is a free open source screen reader that runs on the Linux operating system. Orca provides access to the web (in particularly Firefox), and other applications such as open office and also provides support for Java.

Screen reader users can configure the settings via the Orca configuration menu and customise it to work for their specific requirements. As an open source package, Orca is constantly being developed to support other applications on the Linux OS, so other additional accessible applications are constantly being added.

http://live.gnome.org/Orca

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■ A website containing links to products and services for persons who are blind or have low vision.
www.whitestick.co.uk

■ Web Anywhere access review.
www.mediaaccess.org.au/digital-technology/ assistive-tech/webanywhere

Michael and Tara are screen reader web testers for Shaw Trust Web Accessibility Services.

Top tips to be secure online

Paul Toms of IT Can Help has some useful advice for those who are concerned about steering clear of trouble on the net

Most people store a lot of personal information on their computers. If users do not protect their computer properly when they are online, it's possible that personal details could be stolen or deleted without their realising.

Computers can be attacked in a number of ways over the internet. Viruses and spyware can delete files and allow criminals to scan computers for personal information. A computer could even be hacked (where a person gains access to a computer over the internet or through a wireless network).

There are many easy things a user can do to make their computer more secure when they are on the internet or in a public place.

Use strong passwords

Many websites use passwords to protect a visitor's identity. If passwords get into the wrong hands or are easy to guess, personal details will be easily accessible. Good passwords should:

- Never be shared (including with helpline staff), written down or observed
- Be at least seven characters long
- Be a mixture of lower and upper case letters, numbers and other keyboard characters
- Changed regularly – every three months is good guide.

Log off and collect printouts

If a user accesses a site where they have provided personal details or a password, they should always log off and close their browser window when they've finished. This is especially important when using a shared computer – for example, in an internet café or a library.

A user must make sure he or she has collected anything they print out from the printer or their personal details might fall into the wrong hands.

Monitor family use of the internet

Make sure everyone is aware of internet security and safety issues. This is especially important for young people and children, who may use file-sharing programs, instant messaging and chatrooms more than adults.

Think about using parental controls to restrict sites they can view and what they can download. It's usually possible do this through the settings on your internet browser, or you can buy separate software.

Online scams

Online scams use the internet and email to trick people out of money. These can take many forms and Action Fraud is the UK's national fraud reporting centre. It is run by the National Fraud Authority – the government agency that helps to co-ordinate the fight against fraud in the UK.

Anyone can report fraud via their website, by calling 0300 123 2040 or by forwarding fraud emails to them. They also provide help and advice for victims of fraud.

Shopping safely online

When buying online

- Never transfer or receive money for someone else
- Check the site's privacy and returns policy
- Print out a copy of your order and any acknowledgement you receive
- Check bank statements
- Get independent financial advice before making investments
- Only do business with companies you recognise or have been recommended by someone you trust – don't judge a company on how professional their website looks.

Sites with 'https' in front of the web address mean the site is using a secure link to a computer. A yellow padlock symbol will appear in the browser window to show the payment process is secure.

Using strong passwords is especially important when spending money online. For advice on how to choose a strong password, see 'Use strong passwords' near the beginning of this page.

Helpful links

Get Safe Online: www.getsafeonline.org, advice for parents about staying safe online http://bit.ly/x5ILur, advice for young people about staying safe online http://bit.ly/yXKHmJ, protecting against scams www.bit.ly/q4gZOF, report a fraud at Action Fraud: www.actionfraud.org.uk/report_fraud (links that start bit.ly are shortened to make it easier to type them in).

IT Can Help is a charity with a network of over 250 volunteers across the country who help people with disabilities to use computers in their homes. www.itchanhelp.org.uk ■

Clouds on the horizon

As the IT industry gears up to deliver assistive technology via the cloud, we look at developments at two leading companies

Texthelp Systems, the literacy software company, believes the future of assistive software lies in delivering packages of apps to a wide variety of devices via the cloud.

The company, which has built an international business out of its Read&Write GOLD program, is developing web apps based on its existing software.

Developers at Texthelp are meeting the challenge of how best to present the applications on mobile devices as well as developing new business models appropriate for a new technology era.

The Northern Ireland software firm has already begun offering web apps to users who have bought the desktop version of Read&Write GOLD.

Texthelp demonstrated four web apps at the BETT education show in January: Read&Write Web, eBook Reader, Speech and Dictionary aimed at supporting students with reading and writing difficulties using mobile technologies.

The first, Read&Write Web, is a toolbar that can be opened inside leading browsers Internet Explorer, Safari, Chrome and Firefox, running on a phone, tablet or computer.

The Book Reader app allows users to search for and access eBooks from the Bookshare digital library service.

The Speech and Dictionary apps are designed for smaller wireless devices such as phones and the iPod touch. Speech is a text to speech application, while Dictionary allows users to look up definitions and have them read aloud.

"With the emergence of Web App technology we are at the same place we were 15 years ago when assistive technology first came into schools," Texthelp chief executive Mark McCusker told *Ability*. "It is very exciting time with schools buying devices like iPads before the applications are even available."

With suppliers moving towards the cloud, the world will be a very different place, McCusker believes. "Half of the apps on show at BETT will not be here next year or will have changed dramatically."

The development process is very different from the
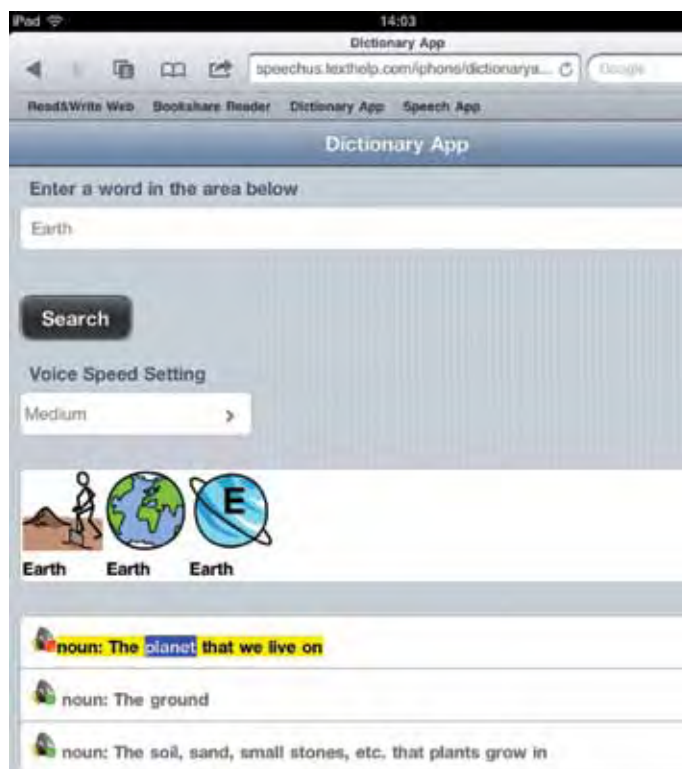
Texthelp's dictionary app

18-month cycle involved in producing a new version of Read&Write GOLD, says Texthelp. Web apps are usually put together in much shorter timeframes.

"If we develop an app and sell it for $5 that is never going to work economically," says McCusker. "Our plan is to create apps that will be sold as a suite".

"Within special needs we are ahead of the game because of our experience working in the publishing sector in the US."

Texthelp has a long standing contract with the State of Kentucky to work with school publishers on formatting their books to work on Read&Write GOLD.

It is not surprising that Texthelp has its sights set on apps based around the EPUB 3 digital publishing standard designed for multimedia content. "When standards emerge, markets start to grow," observes the bullish McCusker.

"However, there are still a shed full of challenges to deal with," he acknowledges. "For example you can really only run one program at a time on a smart phone, but multi-threading is on its way.

"The form factors are relatively small too so concepts

like toolbars don't easily translate to phones."

Texthelp is spending as much time figuring out the infrastructure that will enable it to deliver its apps to users as it is actually writing them.

First the company has to decide which devices to target, a decision made easier by the fact that 75% of users already have kit running Apple iOS or Android operating systems.

Then it must invest in enough server power and software to ensure that hosted applications such as text-to-speech run as smoothly as possible.

For instance, a streaming text to speech application involves critical synchronisation to ensure that a word is spoken at the same time as it is highlighted.

"We had to redesign our servers – originally we had just one server that was not easily scalable and now in order to meet the demands of hundreds of thousands of concurrent users, and millions of page impressions per day we have developed a scalable server cluster." says McCusker. "We also spent a number of 'man years' on developing streaming text to speech server software."

Licensing arrangements are also challenging since the old perpetual licence system doesn't work for low cost apps that require an internet connection. McCusker says that Texthelp could offer students a four year subscription for a one off payment of, say, £50.

"Technology such as the iPad is really beginning to take off in schools in the UK – assistive technology software needs to be transferable across platforms in order for users to benefit with whatever computing device they are comfortable with," McCusker concludes.

Lightening the load of producing accessible formats

A group collaborating on the development of a cloud-based literacy aid has been awarded a £100,000 grant by the Department for Business Innovation and Skills (BIS).

Supplier iansyst together with developer Raspberry Software and the University of Southampton have won the funding after demonstrating that their idea for an 'accessible Dropbox' works.

At the BETT education exhibition, the company showed a prototype version of MyDocStore – web software that enables users to transfer documents between a variety of devices in a number of different text and audio formats.

MyDocStore is a solution that works like Dropbox to convert, synchronise and transfer documents in accessible file formats including PDFs, Word documents, MP3 files, Braille and the EPUB 3 standard for web content.

The service, which is being trialled in universities and colleges, works across smart phones, mobile devices and tablets.

"We are trying to make the process invisible to the user so that someone can open a file on their PC and MyDocStore will format it and do the conversions," says Abi James, head of product innovation for iansyst.

James says that providing material in alternative formats is a heavy burden for tutors in higher education, but MyDocStore will

Abi James head of product innovation at iansyst

lighten the load because it is set up by students who specify what kind of conversions they want.

"Those who are reluctant to read can get an MP3 file without having to plan ahead and do the conversion themselves: dyslexic students might not think of asking for an audible version," she explains.

The collaborative project has been funded through a Small Business Research Initiative (SBRI) competition sponsored by BIS and the Technology Strategy Board (TSB).

The project involves three partners. iansyst is carrying out user testing, helping with the development of the user specification and compiling a feasibility report. Raspberry Software is responsible for coding and software development.

The Electronics and Computer Science Department at Southampton University, meanwhile, is involved in the user specification, user testing and in evaluating the results.

"It is a great step for BIS to be investing in assistive technology," says James. "From our point of view we are keen to use it as a stepping stone to other projects. It is an area that's moving quickly, that is why we have to move quickly too."

Other online products recently introduced by iansyst include Dyslexia Screener, a test designed to indicate levels of dyslexia in learners aged over 16.

The company has also launched EB WordBanks, a package that enables users to create banks of words from a variety of sources, and Spellex for Speech Recognition, which provides specific dictionaries for a variety of subjects, including law and medicine.

At BETT, iansyst also demonstrated Audio-Notetaker for the Mac – audio-based software that allows users to take notes without writing down anything. ■
www.iansyst.com

Sound Wi-Fi connections

Intel has patented a technique for connecting wireless devices such as a TV to a router using sound rather than requiring a user to key in an eight-digit code.

Using built-in loudspeakers, Wi-Fi capable gadgets would emit a unique series of sounds containing a secret code that would be picked up by a Wi-Fi router equipped with a microphone.

The router would hear the code, verify the device type and then automatically enrol it into a wireless network. The sounds emitted could vary – instead of bleeps they could be coded clicks or even music. It could even speak the code with a voice synthesiser for the visually impaired.

If the system proves to be secure – the sound shouldn't be audible through walls, for instance – Intel says it could form part of Wi-Fi Protected Setup, the standard enrolment software used by all Wi-Fi device makers.

Apple to provide touch screen alternatives?

Apple seems to be taking steps to make its tablet and smartphone devices more user-friendly for people with disabilities who are unable to use touch screens.

The technology giant says it is seeking to patent a method for connecting its products to accessories that could act in place of the touch screen, in a recent US patent filing.

This may allow people to control Apple products in the future by using devices such as a joystick or by using a sip and puff pipe.

In recent years, Apple's iPad, iPhone and iPod Touch devices have been popular among people with disabilities who use text-to-speech and other types of applications to replace traditional, assistive technology.

However, since the products all use touch screens, people with dexterity issues and visual impairments have had trouble with the devices. The patent application suggests Apple is looking to eliminate this hurdle.

App to help Americans cross the road

A University of Minnesota researcher is developing an app that would tell visually-impaired people when to cross the street, which direction they are going and how many lanes they have to cross.

The app, which will be free to download, will also tell users the name of a street if the user taps the phone and points it in any direction, according to Chen-Fu Liao, a senior assistant engineer at the University.

Users tap the phone a second time to request a walk signal so they do not have to struggle to find a button to push. The system will tell users when to cross and how much time they have.

The app will eventually be connected into traffic information systems and have the potential to alert drivers that a visually-impaired person is in the vicinity.

Signals and traffic crossings are obliged by the Americans with Disabilities Act to make visual elements accessible to people who cannot see.

The prototype of the product will be tested in Minnesota in April.

BrailleTouch brings texting to iPhones

Georgia Tech researchers have built a prototype free Braille app that allows vision impaired users to text from an iPhone.

BrailleTouch uses a six-finger chording process that replicates the traditional Braille keyboard. Users place six fingers along the edge of the device.

"The key feature of the BrailleTouch technology is the use of the six-key configuration so that the keyboard fits on the screen and users keep their fingers in a relatively fixed position while texting," says Mario Romero, the project's principal investigator.

"This design allows users to hold
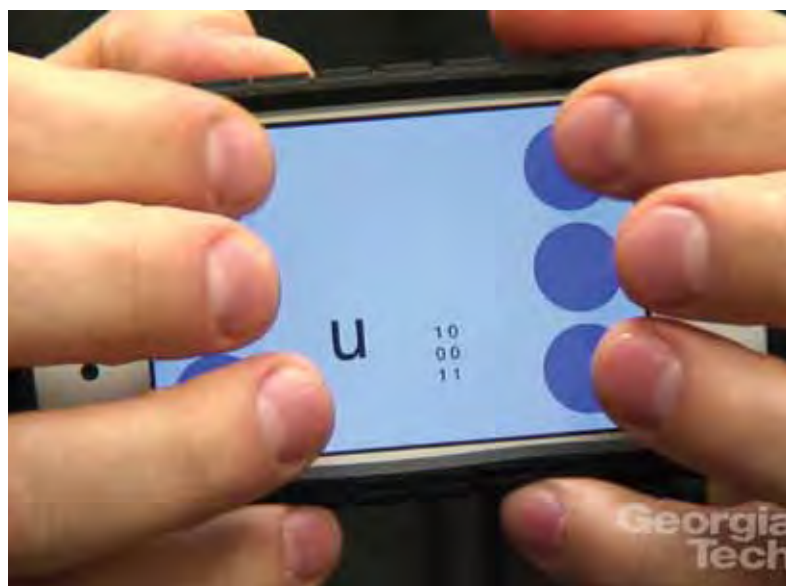
their device with the screen facing away from them, cradling the device with their palms or pinkies and thumbs, and to type with a majority of their fingers, identical to typing Braille on a standard keyboard."

Soft keyboards do not provide tactile feedback, while physical keyboards often use small and numerous fixed buttons.

Early studies with visually impaired participants proficient in Braille typing have demonstrated that users can input at least six times the number of words per minute compared with other eyes-free texting systems for touch screens.

Users reach up to 32 words per minute with 92% accuracy with BrailleTouch.
www.youtube.com/ watch?v=rIEO1bUFHsI

Typeface for people with dyslexia

A Dutch design firm has created a typeface intended to be read more easily by people with dyslexia.

Characters in the Dyslexie typeface are designed to be more recognisable and easier to see which way up they should be.

Design firm StudioStudio has taken account of the fact that people with dyslexia tend to rotate letters as well as mix them up.

![abc in Dyslexie typeface]

Letters are made to look heavier at the bottom by using thicker lines, for instance, making it easier to recognise their true orientation.

The differences between letters, such as their openings, extensions and slant, are also exaggerated to make distinguishing them easier.

Capital letters and punctuation, meanwhile, are rendered in bold to make the beginnings and endings of sentences more clear.

The result of those changes to Dyslexie's letters, as well as adjustments to the spacing and layout, StudioStudio says, is easier reading, which has been confirmed by independent research at the University of Twente.

The typeface is available for Mac and Windows systems and costs $69 for personal use. Licences for schools and business users are available for €445.
http://www.studiostudio.nl/

Adjustable iPad stand

RAT Stands have bought out a height adjustable iPad stand called the Z3.

The main selling point of the Z3 is that it is adjustable from 40cm right up to 137cm so iPad users can tap away while lying down, sitting or standing.

The stand's rotating rubber iPad cradle turns 360 degrees so the tablet can sit at any angle. A special joint means that users can look at it from any position.

It also folds into a carrying bag in three steps, and is light at just 2.1kg.

The Z3 is made by a music stand company that has supplied the Sydney Opera House.

The model *Ability* tried was stable enough and held an iPad firmly. It looked built to last, which may explain its £144 price tag, with a bag for an additional £18.
www.ratstands.com/z3_ipad_ stands3.html

ClaroRead turns a new page

Claro Software has bought out ClaroRead version 6 with additional features.

ClaroRead now includes subject specific dictionaries that can be used when writing about subjects such as business studies or biology.

A larger English prediction dictionary of 100,000 words has also been included.

The software also includes new ways in which the word prediction feature can function. For example, by offering suggestions based on the letters that have been entered, their sound and the position of letters in the word.

ClaroRead can now translate a word or phrase into languages including French, German, Swedish and Italian by holding the Ctrl key and hovering over the word.

By selecting text, ClaroRead can translate and read the text back to the user. This feature is for users who do not have English as a first language.

The software is available in three versions – ClaroRead Pro, Plus and Standard – which also contain Claro Software's visual mapping tool, ClaroIdeas. A single user licence for the standard version costs £129, excluding VAT.

The software's 'save to video'

feature has been enhanced with improved video output formats. Text can be saved as video and played back on media devices, such as an iPad or Android devices.

"Save to video has been improved so that it handles longer sentences well, and now produces video optimised for the Apple iPad, making it a great tool for creating revision notes or study tools on the go," says Alasdair King, the company's managing director.
www.clarosoftware.com

Vodafone's no frills phone for £25

Vodafone has launched a stripped down phone for older users for £25, half the price of most of its competition.

The Vodafone 155, also known as the Alcatel V155, is a straightforward mobile with large buttons and menus that are designed to be easy to understand.

Features include a SOS button on the back that can be customised to call and text a variety of contacts, plus hearing-aid compatibility and an FM radio.

![Vodafone 155 phone]

When the SOS button is held down for a set number of seconds, the phone emits a loud alert sound, sends out a help text message to four designated SOS contacts, and will then automatically try to ring them via hands free.

The Vodafone 155 has standby time of at least 29 days and a talk time of up to 600 minutes. The phone also includes a desktop charger and loudspeaker.
http://shop.vodafone.co.uk/shop/ mobile-phone/vodafone-155

Tablet provides gesture-based reading

Care Innovations, the company that makes the Intel Reader, has introduced a second reading device called the Achieve Tablet.

Based on the Android Honeycomb operating system, the 7-inch screen Tablet can take pictures of printed text, convert them to digital formats and read them aloud. Its 5-megapixel camera can capture an 8.5 x 11 inch page with 150 lines per page

The device uses gesture-based navigation, similar to that on Apple handhelds. Users can scroll or flip pages, pinch to zoom, or touch a word to begin reading. They can navigate by DAISY headings, and by word, sentence, page, and table.

Achieve Tablet supports DAISY, Learning Ally Audiobooks; and Bookshare digital books. It can be also be used to create DAISY talking books, as well as .txt, .jpg and MP3 files.

The Tablet's software allows readers to manage content by creating categories and favourites to organise libraries on their desktops or laptops.

The device is also compatible with Achieve software for Windows or Mac, which offers an expanded list of features and can be bought separately.

The company says the product will be available in the UK soon, but has yet to fix a price for it. The Tablet will be available through Care Innovations distributors including Humanware, Microlink, Key Tools and Sight and Sound.

Meanwhile, Sight and Sound Technology and Humanware have been offering the Intel Reader at a discounted £599 plus VAT.

The Intel Portable Capture Station, which enables the entire page of a book or document to be read aloud in a single capture, is included free as part of the offer.

Research carried out in the US by SRI and commissioned by Care Innovations claims that, under certain conditions, the reader can increase reading comprehension test scores by as much as 23 percentage points.
www.careinnovations.com/Data/Sites/1/downloads/Achieve_Tablet_Spec_Sheet.pdf

iPad game helps autistic children develop social skills

Children with autism as young as 18 months could be helped to improve their socialising skills thanks to a new iPad app.

FindMe is a game that challenges children to find an onscreen character in different scenarios. Using the iPad's touch screen, players tap the character to move onto the next, more complex level.

Researchers from the University of Edinburgh have collaborated on the game, the first ever attempt to fuse autism research with iPad gaming. The research was funded by the Nuffield Foundation.

As the game progresses, children must contend with more distractions on screen. The game is designed to encourage players to focus on other people and their needs, which people with autism find difficult.

Versions of the game under development will focus on other common difficulties in autism, such as being unable to follow a pointing finger or monitor where another person is looking.

Dr Sue Fletcher-Watson, the Nuffield Foundation New Career Development Fellow, said: "Children with autism are often adept with computers. Thanks to the iPad's touchscreen we can now create games for very young children with autism, when it may benefit them most. We hope our app will be helpful to both children with autism and their families."

FindMe, published by Interface3. is available for download free from Apple's App Store.
www.interface3.com

Clearer Birdsong

Wireless headphones could be the answer to recent complaints about poor sound on TV dramas and films.

The recent BBC dramatisation of Sebastian Faulkes' novel Birdsong led to a number of complaints from viewers about poor dialogue and mumbling.

Amplicomms has bought out a headset listening system that can increase sound up to 120 dB, that's as loud as being at a rock concert, without deafening everyone else.

Using Infrared technology, the TV150, which costs £59.95, is less prone to external interferences and features an automatic volume control that eliminates sudden loud noises from commercials, for example.


TV150 receiver overcomes mumbling

The wireless system will transmit sound from an audio source such as TV, HiFi and radio, up to a distance of 30ft, says Amplicomm.

With 25 hours of continuous listening time before a recharge is required, the lightweight receiver is comfortable to wear for long periods.

It's easy to use and set-up, simply plug-in and play. TV150 comes with one receiver and a dual charging dock with extra receivers sold separately (TV-150-1).
www.co-opxest.com
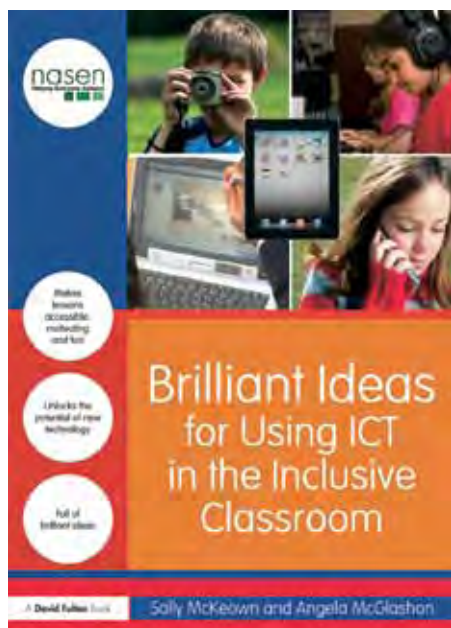
Brilliant ideas

Hard pressed Special Education Needs Coordinating Officers (SENCOs) need all the help they can get when it comes to making effective use of technology in the class room.

And a new book, Brilliant Ideas for Using ICT in the Inclusive Classroom, will help them do just that in a wonderfully concise way.

Books about technology can often be a bit dull and worthy, but authors Sally McKeown and Angela McGlashon rise above their subject and produce a lively, readable and above all practical guide to using ICT creatively.

The authors have come up with 50 examples of how different technologies can be used to enliven the learning process. The 'Brilliant Ideas' are linked, wherever possible, to examples of schools where they are being used.

I particularly liked an exercise that involved working out and measuring the best way to slow down the rate that ice cream melted, inspired by the presence of an ice cream van outside the school.

The book explores how specific technologies such as iPods, ebooks, wikis, sat navs and mobile phones can be used in the classroom. And

in a neat bit of demystification at the back of the book, there are a set of starter activities with clear instructions on how to use specific programs and bits of kit.

Packed with suggestions, tips and pointers to further information, Brilliant Ideas should be in every teacher's library.

Brilliant Ideas for Using ICT in the Inclusive Classroom, by Sally McKeown and Angela McGlashon published by David Fulton 2011 £22.99.

Pervasive Pachyderm

The Pervasive Media Studio is developing a £300 Braille cell display (BCD) called The Pachyderm's Picture.

The move follows an international campaign to drastically cut the cost of electro-mechanical cells spearheaded by the RNIB (see *Ability* magazine issue 84).

Researchers at the Studio, a collaboration between Watershed, University of West of England and University of Bristol, are looking at alternatives to the piezoelectric motors which individually drive each pin in conventional Braille displays.

The cost of the motors is the reason why displays cost over £1,400 and are typically priced at around £3,000.

"We are looking at various ways of getting around this serious limitation and using that technical difference to drastically reduce the price," says the Studio.

"One of the primary focuses of the project is to ensure that the Braille display is not only reliable but rugged under challenging conditions such as a primary school classroom."

The aim is to maximise the number of blind Braille users globally who can access computers with a Braille cell display (BCD) by cutting the cost drastically.

"The ultimate goal is a BCD that is affordable even in developing countries, which can be achieved

through repeated cycles of product development, funded by reinvesting surpluses at each stage," says the Studio.
www.pmstudio.co.uk

Panasonic hits the big button

Panasonic has launched two accessible handsets. The first is the KX-TG6591 range of big button digital enhanced cordless phones (DECT) phones and the second is the KX-TU301 SIM-free mobile phone.

With louder volume settings, a distress call function and hearing aid compatibility, the KX-TG6591 big button home phone has won a Which? Magazine best buy award.

The 'hot key' SOS distress call button can be pressed to alert friends and family by initiating automatic calls to preset phone numbers, until one is answered.

The KX-TG6591 home telephone also features incoming call barring, night mode, one touch eco mode, speaker phone and caller ID. The phone has 15 hours talk time and 170 hours standby time.

Panasonic has also announced a SIM-free easy-to-use mobile phone – the KX-TU301 – which features a simple menu system, loud audible dialling and includes a similar SOS distress call function to its home phone partner.

The 'candy-bar' shape of the KX-TU301 SIM-free GSM mobile makes it comfortable to hold or carry in a bag and more familiar form factor than other mobile phones.

Both handsets from Panasonic also have larger keys, tactile raised buttons and bigger displays making them much easier to read and use.
www.panasonic.co.uk ∎

e-Access 12: Technology for all

28th June 2012
1 Victoria Street, Westminster, SW1

e-Access 12 is the UK's leading conference on the design, access and use of technology – websites, smartphones, tablet computers and software – for disabled people and for everyone.

In the internet age, every organisation is a technology organisation. From computers to smartphones and the web, your employees use technology and your customers or service users do as well.

With millions in the UK affected by some form of disability, from dyslexia to mobility problems, no organisation can afford to be using technology that is not as accessible as possible. And there is a legal requirement for reasonable access.

Whatever stage you are at with your thinking on 'e-accessibility', our conference will help, from practical advice on where to start to more detailed discussion groups to hone expertise.

Speakers will include:

Edward Vaizey, Minister for Culture, Communications and Creative Industries
Nigel Lewis, Chief Executive, AbilityNet
Jean Irvine OBE, Equality and Human Rights Commissioner
Paul Edwards, Paralympics 2012 Online, Channel 4

Our extensive programme of workshops and discussion groups covers all areas of activity, from the strategy and business process issues of designing in accessibility for all, to working on the detail of building an accessible app or pdf document.

Topics include:
■ **Accessibility – the legal requirements**
■ **Building your accessibility action plan**
■ **Government policy**
■ **Overcoming barriers for older people**

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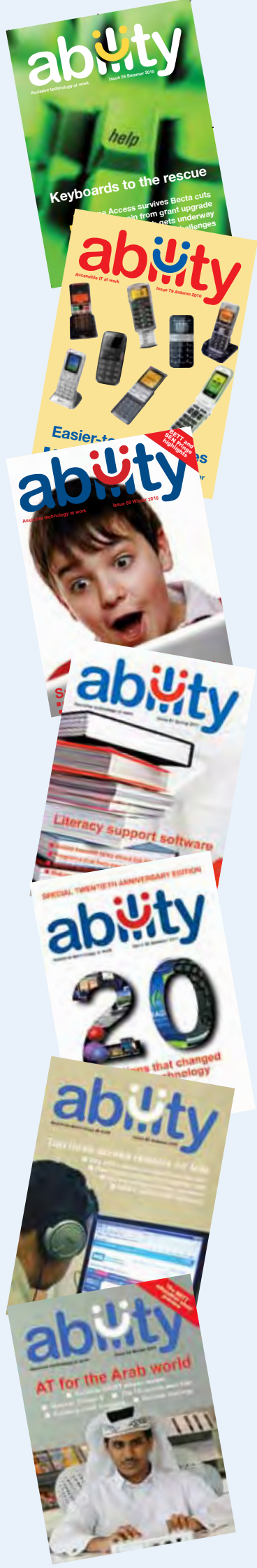
Keep abreast of the latest developments in IT for disabled people: get *Ability* Magazine

Subscription rates for *Ability* magazine and monthly email newsletter 2012

A subscription to *Ability* now includes a monthly email newsletter that supplements the quarterly magazine with more up-to-date news of new products and trends in accessible and assistive technology.

For subscribers there are two options: a personal subscription and an institutional subscription.

1. The institutional subscription comprises five copies of each print edition of *Ability* magazine per year and a licence to distribute an ebook edition (PDF and HTML versions supplied) and a monthly email newsletter. The annual subscription fee is £175 (members of National Association of Disability Practitioners £157.50).

2. The personal subscription consists of either a print or ebook edition (PDF and HTML) and a monthly email newsletter. The annual subscription fee is £65 (members of National Association of Disability Practitioners £58.50).

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Diary of events

COMMUNICATION MATTERS ROAD SHOWS
Cardiff 23 April ; Scunthorpe 25 April; Glasgow 15 May; Liverpool 22 May; Newcastle 19 June; Northampton 28 June
Communication Matters Road Shows give attendees the opportunity to keep up to date with the latest advances in the field of augmentative and alternative communication (AAC). These are product demonstration days supported and presented by leading suppliers of communication aids, equipment, software and symbol systems. Each day consists of five sessions which provide information and offer up-to-date knowledge on the range of AAC products available in the UK. There is an exhibition period when delegates can try out products (there is no opportunity for hands-on during the presentation sessions).
Fees: None.
For further information: Email admin@communicationmatters.org.uk or visit www.communicationsmatters.org.uk.

NAIDEX
1-3 May
National Exhibition Centre, Birmingham
Naidex is the UK's number one exhibition for the homecare, rehabilitation and disability market with over 360 exhibitors. This year the event also includes KideQuip, an area with the latest sensory products, sports and play equipment. On display will be learning and communication aids, toys, sensory equipment and beds and accessories from leading companies including SensoryPlus, G L Jones Playgrounds, Mike Ayres, SpaceKraft, Safespaces, The Sensory Company, Tomkat SNI, Chunc Wheelchairs.
Fees: None
For further information: www.naidex.co.uk

CHILD, YOUTH, FAMILY AND DISABILITY CONFERENCE
23-24 May
Geoffrey Manton Building, Manchester Metropolitan University
The event, organised by the Autism Centre at Sheffield Hallam University, aims to provide a space for disabled children, young people and parents/carers to share their ideas, knowledge and expertise and to celebrate their lives.
Fees: Free
For further information: go to http://childyouthfamilydisability.eventbrite.com/

VISION UK 2012
12 June
Queen Elizabeth II Conference Centre, Westminster
Vision UK 2012 is the only conference in the UK which offers the opportunity to engage with the whole eye health and sight loss sector. Key topics will include preventable sight loss as a public health priority, improving community eye care and sight services and the launch of 'seeing it my way – a quality and outcomes framework for blind and partially sighted people'. Delegates will have the chance to share and learn from examples of good practice and innovation as well as debate the wider social and economic issues around sight services.
Fees: Voluntary rate £84; non-voluntary £174
For further information: visit www.vision2020uk.org.uk

ASSOCIATION OF DYSLEXIA SPECIALISTS IN HIGHER EDUCATION (ADSHE) ANNUAL CONFERENCE
21 June
Friends House, Euston Road, London
A day of workshops will focus on creative and innovative approaches to supporting students with specific learning difficulties in higher education. The main workshop will provide an overview of how the speaker started using and a practical demonstration of Skype to show tools available such as screen sharing. contact.
Fees: £95 members; £125 non-members
For further information: Mary Kountouris: adshedyslexia@yahoo.co.uk or go to http://adshe.org.uk/adshe-annual-conference/

NADP ANNUAL CONFERENCE 2012
26-27 June
Barcelo Oxford Hotel, Chesford Grange, Warwickshire
The Conference will focus on embedding disability equality throughout student services from pre-entry to post exit. In addition to the main theme of the conference the organisers are planning workshops on:
■ Assistive technology benefits for non disabled students
■ Student experience of disability services (qualitative and quantitative research)
■ The impact (or lack of) the Equality Act
■ Innovative assessment adjustments
■ Disability Support in times of financial challenge
Fees: Full rate for members £460, non-members £500. Single days either £175 or £215.
For further information: Call 01604 497933, email admin@nadp-uk.org or visit www.nadp-uk.org

E-ACCESS 12
28 June
Westminster Conference Centre, London
Speakers at this year's event, which is supported by Ability, include Ed Vaizey MP, Minister for Culture, Communications and the Creative Industries; Paul Edwards, Programme Manager – Paralympics 2012 Online, Channel4; and Jean Irvine OBE, Equality and Human Rights Commissioner. Topics to be covered include education, training and professionalism – building accessibility into ICT education and professional training. This year's closing plenary session is a Question Time style panel session headed "Cloud, mobile and consumerisation: a problem explodes".
Fees: Private sector: £295 +VAT; public sector, large charities and non-profits (turnover £150K): £295 +VAT; Small charities and small non-profits (turnover less than £150k): £165 +VAT
For further information: go to www.headstar.com/eaccess12/

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www.abilitymagazine.org.uk

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

Directgov
Government site with help on employment, training, education, financial support, transport, rights and other issues for disabled people.
www.direct.gov.uk/en/disabledpeople/index.htm

Employers' Forum on Disability
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.efd.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

Remploy
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

Drinking in the last chance saloon

The accessibility sector must make common cause with other disadvantaged groups if it is to revive a dying corpse, says Kevin Carey

I much prefer David Mellor's metaphor for the wayward press of "the last chance saloon" to the more prosaic "eleventh hour" and, although some of my friends in the accessibility sector enjoy a glass or two, I think we will stick to the clock to describe our condition.

In spite of the massive knock-on effect of the 1998 amendments on information technology to Section 508 of the United States 1973 Rehabilitation Act on Apple, which resulted in a voice in every iPhone and iPad, the tide has now gone out and we are beached.

Even at the zenith of its regulatory pomp in the 1990s, the EU gave us nothing; and the UK's cynical support of the admittance of new member states to grid-lock EU governance has worked a treat. The Web Accessibility Initiative promised much but its rhetorical success has only been matched by a failure of implementation and it has been chronically sclerotic.

Here in the UK, in spite of Ed Vaizey's public promise to regulate where necessary, the Government believes that 'freeing' business from supposed red tape is more important than guaranteeing accessibility.

If it was ever alive, the Government's eAccessibility forum is seriously ill and One Voice hasn't yet learned to shout.

After more than 15 years in the sector I can't remember a time when we have had such a bad act and such a poor audience. Which came first is a matter of marginal interest but if we don't do something drastic the clock will strike midnight and the saloon will shut.

At a recent sector gathering I noted attendees, including myself, who had been in the business so long that we might generously be

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

classified as old lags and the rhetoric had not changed since the early days of computing in spite of the explosion of smart phones and tablets, and there was an egregious lack of connectivity with the real world of corporate finance and technology marketing.

Earlier that day I had lunch with an old guru colleague who advised me that the access sector needs to make at least one strategic alliance: "Your natural home is with the ageing. The demographic is there and so are the individual budgets. Not all old people have an impairment but just about all the people who have an impairment are old."

There are, I reflected in response, some special aspects of computing that relate to children in education and adults in employment with impairments, but that should not lure us into the more general mistake the sector has made of allowing people with severe congenital or paediatric impairment to make policy and design practices which are then thoughtlessly applied to those who acquire a mild impairment later in life.

There might be a very useful dialogue between our technophile sector and the much more technophobe ageing sector; but we will have to be careful not to over-complicate our message and that will mean being much clearer in our own minds about the relative roles of generic technology and assistive technology in meeting accessibility needs. That's where the economics comes in.

The alternative and much more exciting but risky approach is to make common cause with the poor and ill-educated.

There are some difficult politics here around the connection, if any, between impairments and social conditions, which respectively cause learning difficulties and alienation, and it may be that these are so great that the enterprise isn't worth the pain, but if we approach this situation with something to offer rather than being defensive it might work.

No doubt the cause of accessibility, or eInclusion, or whatever it will be called next time round, will come in on a new inclusive tide – David Cameron will probably have to re-invent Tony Blair's Social Inclusion Unit – but can we afford to wait?

Causes that do not advance and grow retreat and shrink; and if we can't inject some new life into the dying corpse we ought to stand aside for the next generation. ∎

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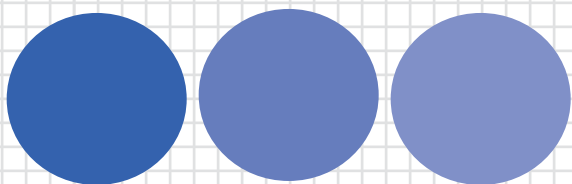**Email us on: corporate@texthelp.com**

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Chris Caswell, Policy and Document Manager, Kent Fire & Rescue

For further information, contact the Access to Work Team on Tel: +44 (0)28 9442 8105, **Email:** corporate@texthelp.com or visit **Web:** www.texthelp.com