# Tech City News

## **Assistive technology: life hacking for everyone.**

### By Sarah-Jane Peake and Rebecca Bunce.

Everyone struggles with something. Whether it’s concentrating on work, remembering to do a small task, prioritising activities or choosing something to wear in the morning. We are all, always looking for better ways to do everything. For disabled people this is equally true, except there are a few extra barriers in the way.

We are in an age of living imagination. Robotic arms, cochlear implants and eye-gaze technology grab the headlines, as the advances in technology make the impossible possible.

But there is a quieter dream playing out in the background that’s pushing the boundaries of engineering and the possibilities of life even further.

Assistive technology covers a wide range of software and hardware, with the potential to give the 12m disabled people in the UK the freedom to access education, work or simply everyday living. These technologies may not be quite as sexy, yet, but they are vital to giving people independence.

Assistive technology at its best makes disabled people less disabled. Disability is not the impairment the individual has, but rather the way society responds to it. Disability comes from stairs in front of a wheelchair; the belief that someone is unable to do something; or insisting that the only way a company can work is for everyone to come into the office.

Technology in general offers an opportunity to work differently and can put disabled people on an equal footing to non-disabled people. It allows for aspiration. It also offers non-disabled people a way to life-hack their way to more effective working.

But there are two barriers standing in the way of the freedoms that assistive tech provides. Firstly, new technologies can be expensive and for disabled people, there is an extra barrier as government funding cuts mean people are less able to afford these life-altering technologies. Secondly, most people are simply unaware of the technology or how to use it.

These issues pose a challenge: how can the tech community and disability community work together to develop the scope of and ensure access to assistive tech?

#### **Can we do a deal?**

Disabled people are consumers, something that’s often forgotten. And with one in five people in the UK living with a disability, this offers a significant market to tech innovators. But in the Consumer Models for Assisted Living report by Coventry University, the top-rated barrier to buying assistive technology was cost.

UK sales of assistive technology are currently largely supported by government schemes, such as Access to Work for those entering the workplace, and Disabled Students Allowance for people getting on in higher education.

In 2012 to 2013, 56,600 full-time undergraduates received DSA totalling £127.6m, along with 3,000 part-time students, who received £7.3m, and 4,900 post-graduate students, getting £10.9m. A total spend for the Department for Business, Innovation of £145.8m. During the same period, 31,500 individuals were helped by the Department for Work and Pensions through Access to Work.

But these budgets have seen significant cuts for hundreds of thousands of disabled people, with leaked plans from the new government identifying still further savings to be made. So how do we increase access when funding is falling?

One way that more people can start spending on these life-changing solutions is to lower the cost, which might be done through exploring the wider opportunities to sell these products. Assistive technology can be useful for everyone – it’s life hacking – so it’s not just disabled people. If technologies such as mind mapping software Inspiration, Claro Capture and Dragon Naturally Speaking by Nuance became mainstays of the office for everyone, they would not only improve productivity and help lower price points, but also break down attitude barriers too.

#### **Are you being served?**

Tech companies must make sure their products are more compatible with assistive technology. Does your product work with Dragon Naturally Speaking or Jaws? Do you know what this software is? With almost 2m people in the UK experiencing sight loss, can you afford not to?

Think of it as future proofing. Demand for and use of these products is set to skyrocket because of an increasingly ageing, but tech-savvy, population.

In this context assistive technology is not an extra but rather a vital tool providing life hacks for everyday problems, as explained by Andrew Johnson, managing VP of Gartner: "Text-to-speech recognition not only allows sight-impaired people to listen to the printed word, but also helps solve part of the distracted driving epidemic by delivering audio versions of text messages. Similarly, optical character recognition began with creating devices for the blind, but has expanded into applications such as license plate recognition used by law enforcement."

A good example of this is the popular speech recognition software Dragon Naturally Speaking. Used for years by many disabled people, Nuance’s technology is now truly integrating into the mainstream, with cloud speech recognition in domestic appliances including TVs, voice biometric security for banking identity, use with wearable devices and solutions for contact care centres.

Talking to our devices is now commonplace (thanks Siri!) and this ubiquity has a positive effect for disabled users, making this kind of technology even more accessible, intuitive and easy to embrace. Social, as well as technological, developments have helped to reduce any stigma and embarrassment a first-year student might feel when using disability software for the first time.

#### **So how will people know what they don’t know?**

So how will people use technology they’ve never heard of at the same time that funding has been cut for training around it? While mainstreaming is happening, more needs to be done and sooner.

Accelerator spaces like Wayra UnLtd and Bethnal Green Ventures, supported by a £10m Social Inucubator Fund created by the Cabinet Office, have been incubating some exciting assistive tech ideas over the past few years.

A small contribution to this challenge will be Launchpad TV, launching this summer. It’s a YouTube channel offering free, easy to access tutorials on a range of assistive technology software to help people understand the technology and ask questions of it.

The first videos will be a joint project with Claro software, providers of ClaroRead, a multi-sensory software tool for supporting reading and writing. These videos will help life-hack everyday issues in studying and working. There’s the hope the videos and social media platforms will spark more conversations, more sharing of ideas, more openness and collaboration.

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