

Samsung focuses on the sight impaired and internet security flaws

Smartphone assistive technology for the sight impaired

In previous issues we've covered some specific smartphones that have been developed for the sight impaired. Samsung are now doing something similar, but in the form of accessories. In March 2014 they announced, with immediate availability, three interesting accessories to assist the sight impaired. At present they only work with one specific Samsung Smartphone, the Galaxy Core Advance. Samsung have stated they plan to support other smartphones in their range in the future. Galaxy Core Advance is a large screen, low cost, smartphone that has just been released. At the time of writing it is available without contract for £170 (Clove Technology – www.clove.co.uk).

The accessories:

- **Ultrasonic cover:** The smartphone is positioned within the ultrasonic cover as illustrated (Figure 1) and acts like a two metre 'white stick'. If held in front of a user the unit detects obstacles around the device and informs the user by means of vibration or spoken words.



Figure 1.

- **Optical scan stand:** The second accessory is a low cost (£25 at time of writing) stand that turns the smartphone into a CCTV type reader. These devices typically cost upwards of £1000. The smartphone is connected to the stand as illustrated opposite (Figure 2). Once the appropriate app is loaded on the smartphone any written material placed on the stand is spoken out loud.



Figure 2.



Figure 3.

Voice labels: The final accessories are packs of 'voice label' stickers (Figure 3). Users (or friends) can record names or notes and link these audio descriptions to individual stickers. The stickers can then be affixed to items or clothing around the environment. Thereafter, if the smartphone is brought close to any of the stickers the pre-recorded text is spoken out loud. The stickers could be used to record instructions for items like washing machines, or maybe identify descriptions of items of clothing if stickers were to be placed on labels. For those interested the voice labels are a type of NFC (Near Field Communication) sticker. NFC is the same technology built into UK ePassports and wireless credit card payment systems.

In addition to these accessories the smartphone in question includes some features for the sight impaired as standard.

- These are a light sensing app, an instant voice recorder and a voice guided camera. If you want to read the press release in full, here is a short link: goo.gl/TRsK1C

Heartbleed

In April 2014 a new computer security bug, named Heartbleed, was discovered. The bug has received widespread media coverage and if you have not already read about it a simple Google search will direct you to plenty of information on the topic. The purpose of mentioning the problem here is to share a few simple lines about what action you should take if you haven't done anything so far. The problem here is that simply changing your passwords to important websites will not fix your vulnerability until that website has fixed their own security. After that is done a password change will sort out your security. Until then there is a proven risk that your accounts could be compromised. Several firms have taken to emailing all their clients once they have made the appropriate fixes, then encouraging users to change their passwords. The advice for best security is to change your passwords for sites you consider important once they have fixed their site. Lastpass run a service for keeping all your passwords safe that I have recommended in the past. They have a search function on their site which will allow you to check the status of any websites you type in – <https://lastpass.com/heartbleed/> Checking your important sites on this webpage will tell you if you are safe to change your passwords yet.



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Declaration of Competing Interests
The author has no proprietary interest in any of the products discussed.