

Software which reads contents of the internet to people with sight problems has been plagued by technical hitches. **Sue Royle** reports on a BBC solution

See through Betsie's eyes

For Paul Porter, working as a hi-tech officer for the Royal National Institute for the Blind, and a blind person himself, the internet has had a huge impact on his life. "Visually-impaired people used to have information deprivation — now they almost have information overload."

The internet has the potential to revolutionise the lives of people with sight problems. Ideally, it puts them on a par with sighted people — they have the same information at their fingertips, without the usual wait for it to be made available on tape or in braille. "It's amazing," said Paul, who has been browsing on the web for four years. "You can research anything, from recipes to mobile-phone technology."

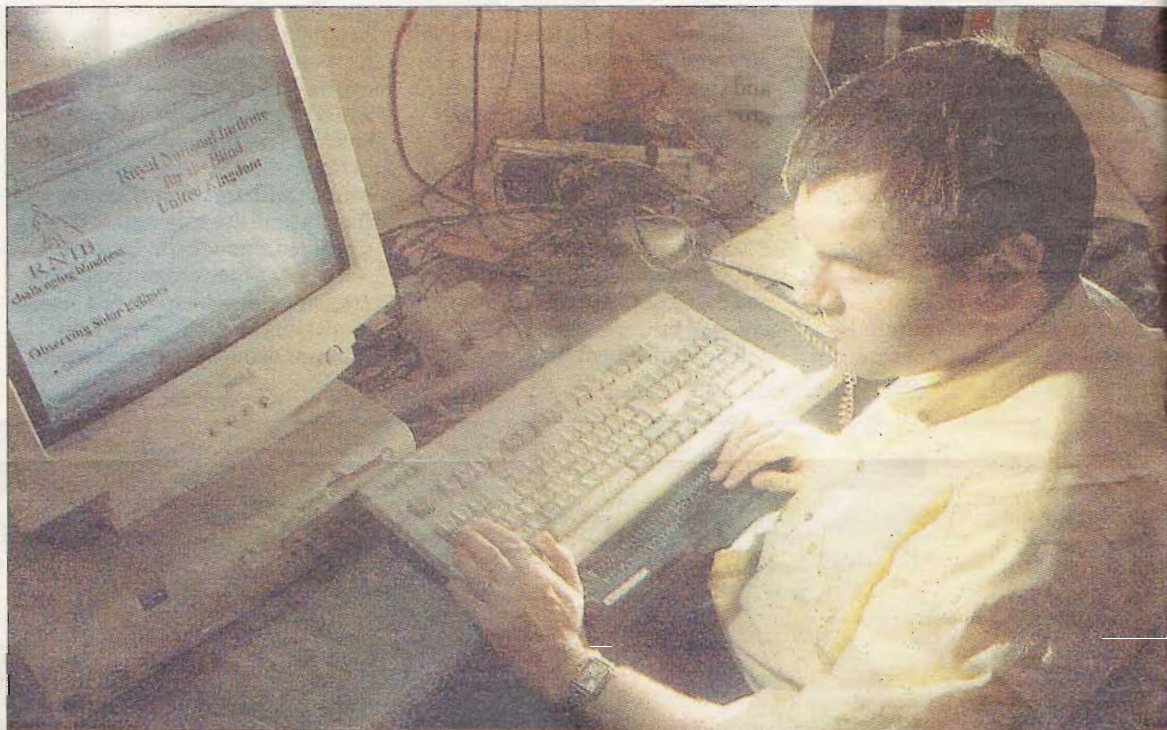
Unfortunately, there is a downside. Software which reads the contents of the screen to people with sight problems is often undone by graphics, columns in websites and navigational aids. It can get stuck on one line which it repeats endlessly, or it can suddenly launch into gibberish as it reads technical instructions at the top of a page. It's frustrating to say the least, says Paul.

A device called Betsie, which was launched by BBC Online in January, is the first step in overcoming the problem. Wayne Myers, a BBC interactive software engineer, devised Betsie or BBC

The Betsie site had 45,000 hits in the first six weeks

Education Text to Speech Internet Enhancer, to overcome technical problems which the RNIB reported their members were having using BBC websites.

"Screen reading software has difficulty dealing with website columns. They are a very common design device, and are on practically all the larger sites. The screen reader just goes straight across the page and often comes out with gibberish," he said.



Vision on . . . partially-sighted, Paul Porter using software that 'reads' the internet PHOTOGRAPH: GRAHAM TURNER

Wayne had the idea of using a filter to fix the problem. Filters get into a web page just before you open it and perform a task, such as translating part of the text. If the filter removed the website columns and any other formats before the screen reader started, Wayne reasoned, the text would make sense.

Wayne set up Betsie last year, using feedback from the RNIB, and suggestions from colleagues. The RNIB were so impressed, they gave it their accessibility award and, in the first six weeks, the site had 45,000 hits. The world wide web consortium, which oversees standards and wants to increase accessibility, also added it to their list of tools.

Betsie sits on the server, and is built into the website which downloads it when you select the Betsie link. It picks up the information you want and strips out the formatting leaving just text.

"I've been astonished by the response," said Myers. "For a while I wasn't even sure if it was going to be useful, but I was very pleased

when people from the RNIB started saying nice things about it, and even more pleased when I got emails from blind people all over the world." The feedback has been almost overwhelmingly positive, or at least highly constructive, Myers said. One man wrote: "Now I can 'see' the listings for the World Service for the first time."

Due to technical security issues at the BBC, Betsie is only available on the corporation's websites, but it has an open-source licence, which means that anyone can download it, use it and distribute it, so long as they don't charge. An American cookery site (www.cyber-kitchen.com) has recently installed it.

Betsie is a halfway step, said Mark Prouse, an information superhighways officer at the RNIB. "We are very pleased to have it, but ideally we would like people to try to stick to the www consortium accessibility standards. But so much information already exists, it's better than nothing."

The American cyber-kitchen site

has offered to help people use Betsie. Users can call it up from their website, select other sites and it will Betsie-ise them. "I think they will be rather busy doing that," said Prouse.

To make it easier to use, Myers wants to make it possible to customise the way Betsie looks to help the partially-sighted, a far larger group than the totally blind. "I have had a lot of feedback from people about the colour scheme, but it's all conflicting," he said. "Some people find black text on a white background easier to read, while others find yellow text on a green background easier. By adding a colour change button to the website, all of them can be catered for." Myers aims to maintain Betsie until screen reading is no longer needed. Myers sees this as very positive. "I'm looking forward to it becoming obsolete," he said.

Useful sites: www.rnib.org.uk;
www.bbc.co.uk
www.home.earthlink.net/~mail4tdb
www.calweb.com/~rainbows;
www.cyber-kitchen.com