



## **Queen's University Belfast Develops Prototype to Help Visually Impaired Read Websites**

***Supports Claims that Most Websites Fail to Provide Basic Accessibility Standards for People with Disabilities<sup>1</sup>***

**Bath, 15<sup>th</sup> January 2007** – Queen's University Belfast has developed a prototype to help visually impaired people navigate web pages and access online information more efficiently. The project has been made possible through funding from the Eduserv Foundation, part of Eduserv, a not-for-profit IT services group serving the public sector.

Two million people in the UK have some form of visual impairment. To overcome the limitations of screen readers, magnifiers and Braille keyboards, the new interface will combine visual, tactual and audio technologies to improve the user's browsing experience. A key component of the technology is the intelligent software, which constantly monitors the cursor's location on the web page, detecting near-by objects and informing the user by activating the corresponding tactual and audio features. This technology aims to promote the use of the mouse for visually impaired users, helping them to build up spatial mental models of web pages in a similar way to sighted users.

In practice, if the user's cursor rolls over an image, for example, the mouse will create a tactual buzz effect. A short auditory clip of a camera shutter clicking will reinforce the tactual response. This approach allows the user to develop an overview and a mental, spatial map of web pages and their layout.

To ensure that the new interface will be useful to as many Internet users as possible, it will be able to accommodate different levels of visual impairments. In addition, it will be fully compatible with existing screen readers, allowing it to be used alongside technologies that users are already familiar with.

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<sup>1</sup> Published in Dec 2006, commissioned by the United Nations:  
<http://www.nomensa.com/nomensa/live/news/at-nomensa/2006/12/nomensa-publishes-global-audit-with-united-nations.html>

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Dr Graham McAllister, who is leading the development of the prototype at Queens University Belfast, comments: “There is a real need for a tool that will enable visually impaired people to truly experience the web in a way that they have not been able to do before. Existing devices are not always able to process complex graphics, images or embedded files, for example, making many activities such as online banking or simply surfing the net laborious.”

Claire Gallagher, who is blind and has a keen interest in using the Internet, tested the prototype. She comments: “I haven't seen any computer software like this anywhere before. I found it very useful, as it was able to provide me with an idea of the layout of the web page - something that was never possible before. The package is very user friendly and quite straightforward to use, which is why I think there will be a lot of people interested in it.”

Andy Powell, Head of Development, Eduserv Foundation, says: “The Eduserv Foundation exists to fund great projects such as these – using technology for positive benefit.”

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### **Notes to Editor**

Please visit [www.eduserv.org.uk](http://www.eduserv.org.uk) for more information.

### **Further Information**

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