

Software tool helps Web developers identify seizure-causing content

July 22 2009, by Sandra Knisely

(PhysOrg.com) -- In 1997, an episode of the popular Pokemon cartoon gained worldwide attention when more than 800 Japanese children with photosensitive seizure conditions were admitted to the hospital after viewing the cartoon or the subsequent news coverage of it.

Researchers from the UW-Madison Trace Center have released a [software tool](#) that could prevent similar incidences of media-triggered seizures in children who are browsing the Internet or using computer programs.

The software, called the Photosensitive Epilepsy Analysis Tool (PEAT), allows Web developers to evaluate their site content and determine whether the content presents a danger to people with photosensitive epilepsy.

PEAT is the first tool developed for evaluating Web-based content, and a beta version is available for free download from the Trace Center, a pioneer center that designs mainstream information technology accessible to people with disabilities.

Gregg Vanderheiden, a UW-Madison professor of industrial and systems engineering and biomedical engineering, directs the Trace Center.

"As Web content becomes more dynamic and Web pages begin to resemble television, it is important that we not start inadvertently triggering seizures in people with photosensitive seizure disorders," he

says. "PEAT can help prevent that."

Approximately one in 4,000 people are diagnosed with photosensitive epilepsy and are subject to seizures triggered by certain types of flashing in Web, computer or television content. The condition usually begins before age 20 and is most common between ages 7 and 19. Seizures are most likely to occur when children or teenagers with the condition view content where large areas of a screen flash rapidly and flicker on and off repeatedly.

PEAT allows developers to capture on video a Web browser or application window and all of the actions that occur in the window. Developers then can analyze the video for seizure risk. Developers can also use PEAT to determine if Web content meets the new [Web Content Accessibility Guidelines 2.0](#).

PEAT is the result of six years of collaboration between the Trace Center and professor Graham Harding from Cambridge Research Systems. The National Institute on Disability and Rehabilitation Research, which is part of the U.S. Department of Education, funded the development of PEAT.

More information: Free download: trace.wisc.edu/peat/#download

Provided by UW-Madison

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