

# Made in IBM Labs: Helping the Blind 'See' Internet Multimedia

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IBM today announced a new emerging technology that helps blind and visually impaired people experience streaming video and animation on the Internet. Designed at IBM's Tokyo Research Laboratory, the new multimedia browsing accessibility tool potentially opens a world of rich content to visually impaired people around the world, who number more than 161 million.

The emergence of multimedia content has risen dramatically in the last two years yet people with low or no vision have not been able to enjoy the benefits of these advances. Screen-reading software and self-talking browsers cannot handle multimedia applications, which are designed for intuitive visual use. Visually impaired users cannot see multimedia control buttons appear on a screen. In addition, the audio of a streaming video -- which automatically starts playing after the page is loaded -- interferes with a synthesized assistive voice from screen-reading software, a vital assistant for visually impaired users. Furthermore, most multimedia content operates with a mouse rather than keyboard, making it impossible for visually impaired people to use it.

The new multimedia browsing accessibility tool offers people with visual impairment the same multimedia control features sighted people see and operate with a mouse. To enjoy a streaming video on video sharing websites, for example, visually impaired people can select the "play" button by simply pressing a predefined shortcut key to control the media instead of roaming the content to search for buttons to control the video. The tool also allows users to control video replay speed, volume and even

speed up the sound since to people with visual impairment, listening to the sound streaming video offers is painfully slow.

"The new multimedia browsing accessibility tool will enable persons with visual impairments the opportunity to access dynamic multimedia web content, quickly and easily," said Frances West, director, IBM Human Ability and Accessibility Center. "IBM has a long history of developing innovative solutions for persons with disabilities, and this tool is another example of IBM innovation that will enhance the web experience for persons with visual impairments."

The new multimedia browsing accessibility tool can adjust the volume of an individual source, allowing users to identify and listen to different sound sources including screen-reading software and the sound of a video. If a content creator wants to offer a voice narrative to a video, the new accessibility tool provides the flexibility of utilizing the metadata, which contains a text script explaining what is happening on screen. The tool automatically makes adjustments to let voice guidance synchronize with the video, even with the speed control capability.

IBM has plans to open source the new multimedia browsing accessibility tool to accelerate the enhancement and adoption of the tool to make multimedia contents accessible for visually impaired.

Source: IBM

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