Expanding Access: Alternative Methods for Using Voiceitt Speech Recognition Technology

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Short Abstract

Voiceitt's innovative speech recognition technology is designed to support individuals with non-standard speech by accommodating unique speech patterns. This presentation explores alternative access methods that enhance the usability of Voiceitt for individuals who face challenges with traditional input devices, such as touch screens and standard computer mice. Presented by an Occupational Therapist and a Speech Pathologist with extensive experience in assistive technology, the session will showcase how Voiceitt can be accessed using various alternative access solutions including switch access, eye gaze technology, and head mouse systems.

These alternative methods enable individuals with physical disabilities or limited dexterity to interact effectively with Voiceitt, broadening its accessibility and functionality. We will highlight the features within Voiceitt, such as keyboard shortcuts, which can be used support accessibility. This web-based technology can be across varied platforms and devices, including dedicated communication devices, providing options to utilise existing access technology and systems and to use across devices that are most appropriate in different situations.

The presentation will include real-world examples and configurations used by individuals with non-standard speech who are successfully using Voiceitt using alternative access methods. By highlighting practical applications and individual experiences, this session aims to demonstrate how these adaptive technologies can enhance communication, dictation and environmental control for individuals with diverse needs, making Voiceitt a more inclusive tool for a broader audience.

Long Abstract

Voiceitt's innovative speech recognition technology is designed to support individuals with non-standard speech by accommodating unique speech patterns. This presentation explores alternative access methods that enhance the usability of Voiceitt for individuals who face challenges with traditional input devices, such as touch screens and standard computer mice. Presented by an Occupational Therapist and a Speech Pathologist with extensive experience in assistive technology, the session will showcase how Voiceitt can be accessed using various alternative access solutions including switch access, eye gaze technology, and head mouse systems for individuals with physical disability and non-standard speech.

Voiceitt's web-based architecture enables it to be accessed across a wide variety of platforms and devices, including Augmentative and Alternative Communication (AAC) devices and personal computers, tablets and mobile phones. This versatility is critical for individuals who may have different devices available in various contexts, such as at home, work, or in social settings. The ability to use existing access technology ensures that individuals can communicate effectively in whatever environment they find themselves in.

Voiceitt offers a range of features designed to enhance accessibility. One such feature is the implementation of keyboard shortcuts, which can simplify navigation and control within the application. By incorporating keyboard shortcuts, individuals may be able to speed up their operation of Voiceitt, making it easier to engage in conversations, dictate text, or control their environment.

These keyboard shortcuts can be used in conjunction with switches and switch interfaces that can replicate keyboard keys. Switches can be activated using various body movements, such as a finger press, head tilt, or breath control, enabling individuals to interact with Voiceitt using their most reliable body movements. For individuals with switch scanning access needs Voiceitt is compatible with a range of mouse emulation options including iOS Switch Access and third party AAC software with mouse emulation features such as Grid 3, Communicator 5 and Nuvoice.

Voiceitt’s inbuilt keyboard shortcuts can also support the use of Voiceitt through AAC software on communication devices. Cells within the software may be programmed to replicate the keyboard shortcuts for Voiceitt. This supports the individual to use their accessible software layout to control the Voiceitt webpage, allowing individuals with a wider range of access methods such as eye gaze, switch scanning, direct touch with keyguard support.

To illustrate the practical applications of Voiceitt and its alternative access methods, this presentation will showcase real-world examples of individuals successfully using Voiceitt in their daily lives. These case studies highlight various configurations and setups employed by individuals with non-standard speech, demonstrating how alternative access methods have enabled them to overcome communication barriers.

For instance, we will share the experience of an individual with cerebral palsy who effectively utilizes switch access to engage with Voiceitt. Through a customized setup, this individual has been able to communicate with others, control their environment, and participate in social activities and is now writing his first novel, showcasing the transformative impact of assistive technology.

In conclusion, Voiceitt’s innovative speech recognition technology, when combined with alternative access methods such as switch access, eye gaze technology, and head mouse systems, significantly broadens the accessibility and functionality of communication for individuals with disabilities. By highlighting practical applications and individual experiences, this presentation aims to demonstrate the profound impact that adaptive technologies can have on communication, dictation, and environmental control for individuals with diverse needs.