

Tele-assistant System for Visually Impaired People

Tele-assistant system for visually impaired people has been developed. The system comprises a wearable video camera (including microphone and earpiece) that can be worn inconspicuously by the visually impaired. It enables information on surroundings, as well as requests from the visually impaired user, to be transmitted to remotely located support helper via a PHS. It enables the visually impaired user to receive audio help whenever and wherever it is needed.



Visually impaired user with an earphone-shaped video camera.

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Speech Completion

— On-demand Completion Assistance Using Filled Pause for Speech Input Interface —

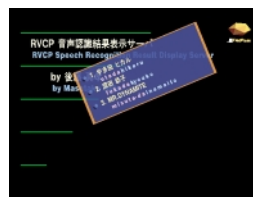
We propose a novel speech interface function, called speech completion, which helps a user enter a word or phrase by completing (filling in the rest of) a phrase fragment uttered by the user. We enable a user to invoke the speech-completion function intentionally and effortlessly by building an interface that displays completion candidates when a filled pause is

uttered (a vowel is lengthened) during a phrase. In our experience with a system that includes a filled-pause detector and a speech recognizer capable of listing completion candidates, the effectiveness of speech completion was confirmed. Speech completion can be applied to various speech applications and is expected to become indispensable in speech interfaces.

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(1) Uttering "utada-."



(2) During the filled pause "da-."



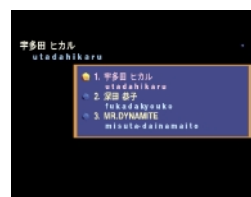
(3) A pop-up window containing completion candidates appears.



(4) Uttering "No. 1."



(5) The first candidate is highlighted and bounces.



(6) The first candidate "Utada Hikaru" is determined as the recognition result.

Screen snapshots of speech completion for a phrase whose last part is uncertain.