

Custom Speech USA™ Case Studies Speech Recognition for Neurologist

Background

Neurologist with office practice was frustrated by the long training time for speech recognition

Case Study

Vendor/Client

Custom Speech USA™ through local speech vendor for Portland, OR neurologist

Overview

This neurologist is a specialist in disorders involving seizures and dizziness. He has a busy office practice and serves as an expert witness in litigation. He dictated using an Olympus handheld recorder and had his dictation transcribed by an in-house transcriptionist. He had used speech recognition in the past, but was frustrated by the training time required to improve accuracy. To improve recognition, he was offered generalized speech training with verbatim text and audio. His transcriptionist agreed to process the test material and prepare the verbatim text. The system used an early version of SpeechServers™ CompleteProfile™.

Components

- Dragon NaturallySpeaking Medical Version
- Olympus DS1000 Digital Voice Recorder
- Noise Cancellation Microphone
- Standard 3-position transcriptionist foot control
- Audio playback software

Installation

The neurologist's previously transcribed reports were processed through the Dragon NaturallySpeaking Vocabulary Builder to find new words and create a more personalized language model. The doctor dictated into the handheld recorder. The Olympus files were downloaded and converted to .wav format for automated transcription using Dragon NaturallySpeaking. The transcriptionist corrected the transcribed reports by playing back the audio and correcting the text in Microsoft Word. After verbatim text had been obtained, it was submitted to Dragon NaturallySpeaking with the audio for additional General Training. This was done for multiple reports. Accuracy substantially improved. The doctor commented, "With the help of Custom Speech USA™, in a short time, my recognition rate increased from 40% to 90% and I am getting better accuracy every time I use it. Is it technology that I would recommend? Yes."

Benefits

- Improved speech recognition accuracy from 40% to 90%
- No significant change in dictation habits of busy neurologist
- "Back-end" training of system transparent to end user
- Used off-the-shelf speech recognition software and Olympus handheld recorder

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We teach computers how to listen®

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