

Technology Profile Fact Sheet

Title: Method of Combining Databases of Transcribed Speech

Aliases: None.

Technical Challenge: To build a language-independent database (corpora) of transcribed speech and speech files from language specific ones in order to create one universal set of sounds.

Description: Speech recognition algorithms work by taking large samples of spoken language and building mathematical models that can then recognize future utterances by comparison. Since the development of good general-purpose models takes thousands of computer processing hours, it is essential that these models cover every possible case of uttered speech to be recognized.

This method ensures that the phonetic information generated for each and every database is consistent within the group, minimizing any inconsistencies in how phonetic information is generated for each. This applies not only to combining databases from a specific language but also when combining databases from different languages.

Demonstration Capability: There is universal acoustic model training software that can be used to demonstrate this method.

Potential Commercial Application(s): Implementation of this method would enhance the quality of devices that need to process more than one language in order to provide voice control, speaker identification, or language identification.

Patent Status: A patent application has been filed with the USPTO.

Reference Number: 1384-1