



SPEECH RECOGNITION

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Speech is the primary means of human communication. Speech recognition is the ability of a machine or program to identify words and phrases in spoken language and convert them to a machine-readable format.

Speech recognition works using algorithms through acoustic and language modeling. Acoustic modeling represents the relationship between linguistic units of speech and audio signals and language modeling matches sounds with word sequences to help distinguish between words that sound similar.

Speech recognition software is easy to use and readily available but its inability to capture words due to variations of pronunciation and to sort through background noise can lead to inaccuracies which makes this problem challenging.

Applications of speech Recognition is quite widespread. Telecommunications, voice navigation, dictation, data entry, form filling, medical documentation and aids-to-the-handicapped are just a few examples of it.

To build a robust speech recognition experience, the artificial intelligence behind it has to become better at handling challenges such as accents and background noise. Today, developments in natural language processing and neural network technology have improved the speech and voice technology, so much so that it is reportedly on par with humans.

