ARTIFICIAL INTELLIGENCE FOR SPEECH RECOGNITION

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Creation of natural human sources to communicate with the computer is currently one of the greatest challenges of modern science. The speech input facility is the most user-friendly way, adopted by development of speech recognition based on sophisticated technologies. The development of methods of signal processing in the absence of sufficient models lead to questions about the processes of generation signals using artificial neural networks.

Artificial Intelligence(AI) is the study of the abilities for computers to perform tasks, which currently are better done by humans. AI has an interdisciplinary field where computer science intersects with philosophy, psychology, engineering and other fields. Humans make decisions based upon experience and intention. The essence of AI in the integration of computer to mimic this learning process is known as Artificial Intelligence Integration

A speech recognition system is a type of software that allows the user to have their spoken words converted into written text in a computer application such as a word processor or spreadsheet. The computer can also be controlled by the use of spoken commands.

Speech recognition software can be installed on a personal computer of appropriate specification. The user speaks into a microphone (a headphone microphone is usually supplied with the product). The software generally requires an initial training and enrolment process in order to teach the software to recognise the voice of the user. A voice profile is then produced that is unique to that individual. This procedure also helps the user to learn how to ‘speak’ to a computer.

After the training process, the user’s spoken words will produce text; the accuracy of this will improve with further dictation and conscientious use of the correction procedure. The system can be trained to identify certain words and phrases and examine the user’s standard documents in order to develop an accurate voice file for the individual.

However, there are many other factors that need to be considered in order to achieve a high recognition rate. When using speech recognition software, the user’s expectations and the advertising on the box may well be far higher than what will realistically be achieved. ‘You talk and it types’ can be achieved by some people only after a great deal of perseverance and hard work.

By using this speaker recognition technology we can achieve many uses. This technology helps physically challenged skilled persons. These people can do their works by using this technology with out pushing any buttons. This ASR technology is also used in military weapons and in Research centers. Now a days this technology was also used by CID officers. They use this to trap the criminal activities.