



Recognizing Speech

Current speech recognition systems perform fairly well in non-conversational settings such as dictation or requests for directory assistance. Applications like this may not appear impressive, but because of accents, inflections, and pauses, even such simple situations require sophisticated techniques to transform speech waveforms into words accurately. One of the most common techniques is a mathematical tool known as a *hidden Markov model*, involving conditional probabilities, which trains on candidate sounds so as to locate the best match for a given input.



Image courtesy of ACM Crossroads.



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