CRESCENDO
speech

Any physician will attest to the fact that documenting a patient visit is the one part of the job they can do without. While tiresome, medical documentation is not only necessary, it has become imperative that the record must be detailed, legible and above all, meticulously accurate. With the increased demand for prompt, quality documentation for every patient care encounter, healthcare institutions are modifying their processes with the help of speech recognition. Implementing speech technology has made clinicians more productive participants in the documentation process while allowing them to keep pace with increased demands.

THE PROMISE OF SPEECH RECOGNITION

Speech is the most common method of communication between people. The promise of speech recognition is that speech will also become the most prevalent mode of interacting with computers. The increased accuracy and reliability of speech recognition software is likely to give a significant boost to the goal of making 100 percent of all patient health records electronic, bringing the electronic patient record closer to the physician. It allows them to continue to use speech as the fastest and most productive method of document creation.

OH HELLO SIRI®!

Speech recognition technology has finally advanced to the point of evoking satisfaction rather than frustration. Events such as the appearance of Siri, Apple's voice-controlled intelligent personal assistant for the iPhone are foreshadowing a possible future of button-free technology. The arrival of speaker independent speech recognition services, a system that does not require user training to perform well for all users under all conditions, has changed the game. Speech recognition is no longer based on who is speaking, but more of what is being said.

95% ACCURACY - ZERO TRAINING

As the only engine on the market using current technologies, Crescendo Speech is a tremendous improvement over competitive products. Built on Microsoft's speech platform, Crescendo Speech is the first engine to support speaker independent speech recognition for large vocabularies. The engine requires zero training and user profiles are eliminated. Even without training, the out of the box accuracy rates of the application are over 95%.

HOW SPEECH WORKS FOR YOU

So what gives Crescendo Speech the upper hand when it comes it recognizing spoken words? The speech engine not only analyzes the sounds of the recognized words but statistically compares them to other words in the language model. The number of times a word appears in conjunction with other words is recorded. The analysis calculates the probability of one word following another, or appearing at the beginning or end of a sentence and then makes its selection.

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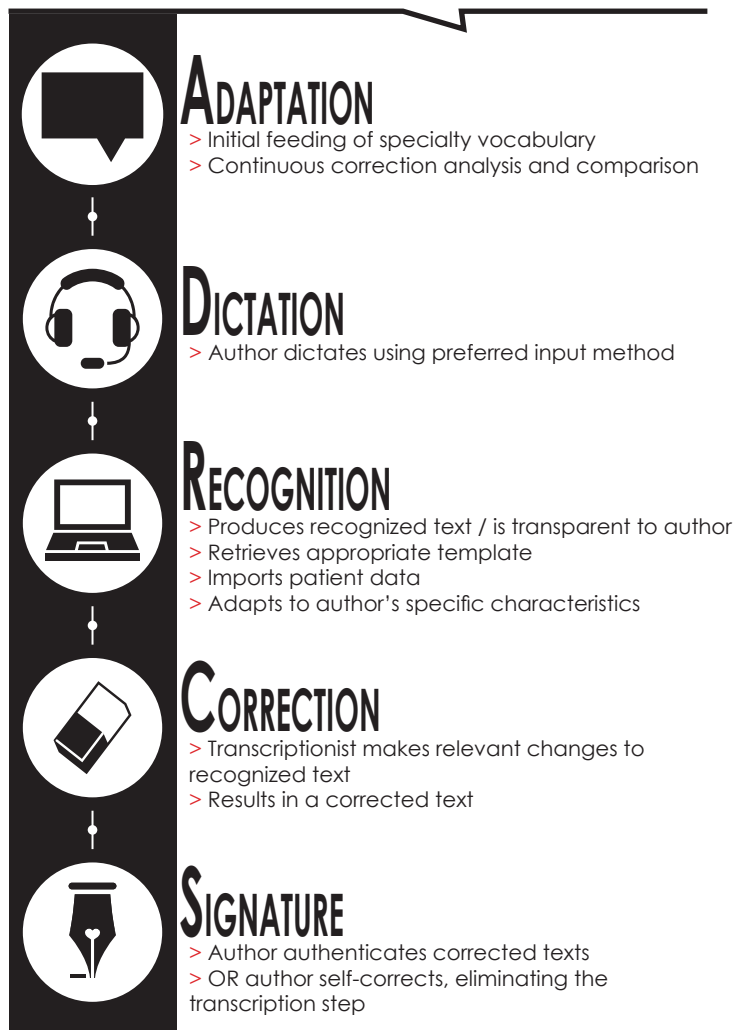
CENTRO AND SPEECH - A PERFECT MATCH

Speech recognition used directly by the physician, in conjunction with a clinical documentation system becomes a viable option in the face rising costs and increasing demands for more complete documentation provided in a more timely manner.

When coupled with speech recognition, the Centro Clinical Documentation System provides the ideal combination of flexibility, convenience, and efficiency. Once the physician dictates and reviews a document, it can then be signed and distributed. The report is then immediately available to other members of the healthcare team, allowing them to make informed decisions on follow up care.

Speech navigation can even be used to move across Centro quickforms. Clinicians can select check boxes, control drop-down menus and fill in text fields, entirely hands-free with nearly 100% accuracy! The speech engine supports custom grammars, ensuring accurate spelling of proper names and places, hundreds of voice commands and a full autotext feature with the option of classification by specialty.

Speech recognition, is not only less time consuming than handwriting, but typed records are legible and usually more detailed and complete. Using front-end speech recognition may also result in fewer unsigned reports as the physician can originate and complete the dictation in the same session. The task of scanning the handwritten note into the EMR is also eliminated, resulting in time and cost savings.

SPEECH PROCESSING WORKFLOW

ADAPTATION
> Initial feeding of specialty vocabulary
> Continuous correction analysis and comparison

DICTATION
> Author dictates using preferred input method

RECOGNITION
> Produces recognized text / is transparent to author
> Retrieves appropriate template
> Imports patient data
> Adapts to author's specific characteristics

CORRECTION
> Transcriptionist makes relevant changes to recognized text
> Results in a corrected text

SIGNATURE
> Author authenticates corrected texts
> OR author self-corrects, eliminating the transcription step

HAVE IT BOTH WAYS

While there are many benefits associated with front-end speech, the back-end option remains a popular choice in the healthcare industry. Many physicians prefer an experienced transcriptionist reviewing their work, which is why Crescendo Speech can always be used both ways...with no extra licensing costs.

BY THE NUMBERS:

95%	**99%**	**33%**	**$0**
out of the box recognition rate	accurate hands-free form-fill & navigation	improved accuracy vs. other vendors	extra cost for both front and back end speech

CRESCENDO
S Y S T E M S

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