Hospitals try voice recognition for health records

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If your doctor is talking to an iPad the next time you see her, she may actually be flipping through your file.

Voice-recognition technology developers are introducing a slew of products aimed at getting doctors to document patient information more immediately and thoroughly. The technology has advanced far enough, its proponents say, that it can now do more than just passively receive doctors' input.

Nuance, the maker of Dragon voice-recognition software, is marketing a new product that is embedded into a hospital's electronic medical record system. As doctors input a patient's information via voice, it can highlight and validate medical facts, spot inconsistencies and ask follow-up questions, says Nick Van Terheyden of Nuance. They can edit to ensure accuracy.

M-Modal, a Nuance competitor, is also working on a similar product that allows physicians to record information in real time on mobile devices as they consult with patients. "Physicians prefer to narrate and dictate. They don't want to point and click," says Juergen Fritsch, co-founder of M-Modal.

"More of them are going to switch because cost is (getting) lower," says industry consultant Reda Chouffani. "And they can now do things they couldn't before, like prescribing (medication). Jaws were dropping at a (recent industry) conference."

The companies' push into [health care](), where accuracy is of utmost importance, is enabled by constant improvement in voice technology. Apple's introduction of [Siri]() on [iPhone]() has also raised the public's awareness of its potential. That the federal government is also calling for hospitals to install [electronic medical record]() systems has also stirred the industry's curiosity for the technology, says Mary Griskewicz of the [Healthcare Information]() and Management Systems Society.

Doctors have used dictation for years as they compile patient care history and post-care summaries, orders and prescriptions. Many speak into a recording device and pay transcribers to type it. In recent years, they've moved on to other software that can transcribe directly as they dictate.

But Nuance's technology -- in testing at the University of Pittsburgh Medical Center and a few other hospitals -- takes the process a step further, employing a mixture of data mining and more "intelligence" software behind the content. For example, a doctor who is writing a note about a heart failure, but fails to register the level of acuity, would be prompted to give more details on whether it was diastolic or systolic, says Rasu Shrestha of UPMC. "A physician may know what to say but not always how to say it," he says. "The idea is to get actionable data while you're interacting with the patient."

The University of California-Irvine Medical Center is testing M-Modal's software that allows doctors to use voice to locate and dictate information to files in its electronic record system. The hospital will use a desktop version when it launches in October, but plans to deploy it on iPads in the next generation, says Jim Murry, the hospital's CIO.

Meanwhile, Nuance announced in February that it will partner with IBM to commercialize IBM's Watson computing system -- made famous by its appearance in the TV quiz show Jeopardy -- for health care. The goal

is to enable doctors to speak into the computer system, which then will comb through millions of documents, prior cases and journal articles to make diagnostic recommendations. The companies have invested about $25 million in the project, but it's still in "early stages," Van Terheyden says.

Griskewicz of HIMSS says speech recognition will be adopted more widely in health care only if the developers can ensure accuracy and convince doctors that it won't create more work. Speech recognition features also will have to be compatible with the interoperability technology standard currently used by hospitals to read other hospitals' electronic medical records, she says.

"Make it easy for them to use regardless of where they are, and they will use it," Griskewicz says. "If you don't accomplish that, they're not going to use it. Usability is key."

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