

## Nuance and IBM collaborate on clinical language understanding

Healthcare IT News, Mike Milliard

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BURLINGTON, MA – In a project focused on improving evidence-based care by advancing natural language processing technologies, Nuance Communications, the maker of speech-recognition software, has announced a new collaboration with IBM.

Under the partnership, the two companies aim to help advance the state-of-the art in clinical language understanding (CLU) technologies – better enabling healthcare organizations to understand and use the clinical information contained in the more than two billion patient reports dictated each year in the U.S.

Nuance has licensed a portfolio of advanced natural language processing (NLP) technologies that will be incorporated into its current CLU-powered suite of speech-enabled clinical documentation solutions. In addition, a team of leading NLP researchers at IBM are collaborating with Nuance's research and development team to integrate the two companies' technologies. By working together, Nuance and IBM will advance the use of natural language processing technologies as a core component of electronic health record workflows.

"The broad digitization of health data and patients' medical records will generate a surplus of clinical information, creating a tremendous opportunity for the healthcare industry to gain valuable insight into what has and has not worked successfully from a patient care and operational perspective," said Charles Lickel, vice president, software, IBM Research. "With Nuance, we'll work to ensure healthcare organizations can gain access to, and classify health data to improve patient outcomes and to help lower the cost of healthcare today."

Advanced CLU capabilities – a healthcare-specific form of natural language processing technologies – will help healthcare organizations unlock valuable patient information from the billions of medical reports that are created in a free-form, unstructured format each year. Access to this information will drive better and more cost-effective patient care across the healthcare industry and will strengthen organizations' efforts to comply with quality reporting and pay-for-performance requirements, such as those outlined in the HITECH Act's Meaningful Use criteria.

With these advanced CLU technologies integrated into Nuance's suite of front-end and backend speech recognition solutions, clinicians will be empowered to document via speech recognition into the EHR – a preferred method of documentation for many clinicians – knowing a CLU-enhanced system can process, identify and extract important clinical data elements such as problems, social history, medications, allergies, and procedures from the free-form text.

"We are extremely enthusiastic about this strategic relationship with IBM," said Janet Dillione, executive vice president and general manager, healthcare, Nuance. "Together, we share an unmatched commitment to transform unstructured clinical narrative into discrete data that can be used to improve patient care while simultaneously bending the healthcare cost curve. By combining the innovative work we are doing with IBM with our existing Clinical Language Understanding product development efforts announced at HIMSS, Nuance will continue to bring unmatched natural language understanding technology to our thousands of hospital and physician practice customers that already rely on our leading speech-enabled clinical documentation solutions."

"Nuance and IBM are taking on a critical project that will bring tremendous value to patient care," added Reid F. Conant, MD, emergency physician, CMIO, Tri-City Emergency Medical Group in Oceanside, Calif. "Clinical language understanding presents a real opportunity to bridge the gap between physicians' documentation preferences and the need for structured, measurable clinical data. Protecting and encouraging clinician dictation is important to ongoing, high-quality patient care. Without the inclusion of such detailed physician notes, there is validated concern amongst caregivers that patients' medical records will be reduced to cookie-cutter documents that do not differentiate from one patient to the next."