

What's next



Healthcare

Healthcare is personal

With continuous developments being made in industry research and regular progress being made in medical technology, it's easy to overlook the most important aspect that we must ensure is consistent in healthcare, that all patient experiences are and remain personal. The work we're doing for the healthcare industry with artificial intelligence is making a fundamental difference to ensure positive outcomes and facilitate these personal experiences for patients.

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Amidst the discussions about medical costs, insurance payments, research and technology advances, it's easy to lose sight of one overriding truth: healthcare is personal. In fact, it's a

personal mission of mine to connect the work we do in [artificial intelligence \(AI\)](#), [cloud](#), and [natural language processing](#) directly to improved healthcare outcomes for patients and clinicians alike.

Many healthcare discussions focus on using technology to drive inefficiencies out of the system. Among other things, that includes addressing the shift in payment systems from fee-for-service to reimbursement for demonstrable outcomes. Those are dry-sounding business factors, but you don't have to look too far to see how they can quickly become personal.

For example, when you go to see your clinician, he or she may spend as much time looking at a screen as they do interacting with you. That's not satisfying for you or for the clinician who got into medicine to care for people, not fill out forms. Clinicians now spend about 45% of their time documenting their work, so they can get paid – and the administrative burden is causing a serious problem with clinician burnout.

Patients end up feeling processed rather than treated. I've experienced this myself. I think of the times where I've had to complete the same intake form before the visit, and again when I arrive, then feel rushed because the doctor's trying to get through the day's schedule.

Our work at [Nuance Healthcare](#) includes and goes beyond making the healthcare system more efficient. In fact, we play a significant role in both shaping and responding to government, industry, and consumer goals for improving healthcare experiences and outcomes. For example, [the Royal College of Physicians](#), states that, "The challenges can only be met by the development and use of electronic patient records (EPRs) in which data are recorded consistently across all contexts. The implementation of national standards for the clinical structure and content will facilitate shared care, enable interoperability between locations and contexts, and yield comparable data to support the management and monitoring of services realising benefits for patients, clinicians and services." That means putting personal healthcare information directly into the hands of doctors and patients.

In a realistic scenario, healthcare experiences can and will start on a patient's mobile device, which may be tracking daily health measurements. A patient emails their clinician with a description or photo of symptoms – the email content is automatically added to their [electronic patient record](#). A [clinical decision support engine](#) extracts key information from the patient's email, performs pattern matching with past information and other clinical data, and creates a detailed summary with recommendations for treatment options, even before the patient arrives in the exam room.

During the exam, a [virtual assistant](#) – much like the smart speakers in homes today – captures the interaction. The clinician keeps their focus on the patient instead of a computer screen. The clinician dictates exam notes and treatment plans, and the virtual assistant calls out medication conflicts and offers alternatives based on the patient's history. AI algorithms scan corresponding diagnostic images to give initial interpretations and decision-support data, freeing time to engage more fully in the patient's care.

I also think of examples from my own life experience. I lost my wife to a heart attack several

years ago. Her age, health history, and symptoms didn't cue the doctors to suspect a cardiac event. But in retrospect, the symptoms, the words she used to describe those symptoms, and other factors may have been spotted and quickly brought to the doctor's attention by a pattern-detection algorithm – potentially changing the experience and outcome.

So yes, what we're doing for the [healthcare industry with AI](#), the cloud, and natural language processing is about improving the cost and efficiency of the system. But even more, it's about making a fundamental difference in both doctors' and patients' experiences and outcomes — for themselves, their colleagues, their friends, and their families.

Healthcare is personal – as it should be.

Tags: [Artificial Intelligence](#)

More Information

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