

Building A Healthier, Cognitive Tomorrow



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What is the biggest digital reinvention in recent times? How will it change healthcare?

FN: I think the biggest recent digital reinvention is cognitive computing and the shift towards looking at AI and cognitive computing in healthcare. We have moved from an era of programmable computers, where everything is business-rules based, logic-based, to an era where information is contextualized.

If you asked a programmer what 2 + 2 is, he/she will say 4.

If you input this question into a **cognitive system**, it will come back to ask you if it is a math question. If so, the answer is 4. If you are referring to seats at a restaurant table, it may tell you 2 adults and 2 kids. In the automotive industry, the machine might come back and say 2 front and 2 back seats taking into context that the question is about the layout of a car.

In a cognitive system, it is learning and being taught versus being programmed. This is particularly important in healthcare, for multiple reasons. For example, medical information and literature is increasing exponentially and it is impossible for clinicians to remember every little bit of new information that comes out in this day and age. If you use a cognitive system that can understand natural language - it can understand a journal, it can understand a medical textbook - it can digest and understand that information and come back with a recommendation or decision support based on all the evidence out there like in the case of oncology it is extremely useful as the information may not be necessarily easy for clinicians to look for themselves all the time too. For us I think cognitive programming is all about augmenting clinical intelligence. It is really being of assistance and helping to bring the best evidence-based information back to clinicians for them to make better and more accurate decisions.

What does a healthier tomorrow look like to you?

FN: I think the world has always been focused on sick care. With the whole shift towards population health management, that will hopefully change too. Typically within a population you have ~20% of people who are very sick but the remaining 80% will include people who are already high-risk. To me, health in the future is all about wellness and prevention. There will be a more holistic view of what it takes to be healthy. From mental health, socioeconomic status to your lifestyle choices. We need to take into account all these factors in keeping people healthy. Having that 360-degree view of a person end-to-end with their medical, social, lifestyle information et cetera, you then have the ability to inform people of personalized plans for them to proactively keep healthy and not move into the 20% group. If we can address that 80% of our population holistically and do it in a way that is personal to individuals, you get fewer that move into the 20% and become complex patients who keep coming back into the healthcare system. That to me is what a healthy world would be.

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