



## Stanford eCorner

### Why Tech Hasn't Transformed Healthcare

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Med-tech entrepreneur Michael Ackermann cites the various reasons why healthcare has yet to be disrupted by technology akin to how Amazon, Netflix and other companies have transformed their respective industries. Now vice president of neurostimulation at Allergan, Ackermann lists healthcare's diverse and complex array of consumers, industry regulations, ethical and legal privacy concerns, and the fact that medical science moves at a much slower pace than software development.



#### Transcript

- So logos of our friends and neighbors here in Silicon Valley, right? We're here, we're used to all this technology coming in and completely transforming the marketplace, and that's the way that we connect. It's the way that we buy goods, the way that we get around, the way that we interface with the world, and we're used to these big technologies coming in and making a real difference, right? But here, healthcare, 17 and a half percent of gross domestic product, and none of those logos are a healthcare company, right? And it's been very, very slow to be converted by big technology. So why is that the case? Well, there's a few reasons. One is that there's a very complex network of consumers. So for Amazon, it's very clear who your consumer is. It's the person who's buying the goods, right? Well, in healthcare, it's a little different. You have the patient, who's what we typically think about. This is someone who is either being diagnosed or being treated, but frankly, a lot of the time, they're not even the one who's making the decision as to which product to use, right? The decision is oftentimes being made or at least heavily influenced by a healthcare practitioner. This is a doctor, it's the nurses, the technicians. These healthcare providers very typically operate in a hospital or a hospital system, and so that hospital also has tremendous decision making ability over what products are used for the patients and by the practitioners within their system, so yet another decision maker.

And none of these people are actually paying for any of it, right? So it's all paid for by an insurance company or it's paid for by the federal government, Medicare and Medicaid, so yet another customer that has to decide that this is the right technology to use. It's also a highly regulated industry so you also have to satisfy the FDA and they have their own sets of needs and requirements. And it's also an industry that's very heavily influenced by the professional medical society, so these are societies that provide guidance to the practicing public, you know, what's the best practice to use and to not use, and they also have very heavy influence over the payer system as well, so what products actually ultimately end up getting paid for and make the list. So, okay, why don't we have Amazon of healthcare? Well, one of the reasons, this very complex network of consumers. What else? Well, it's also a very conservative industry by nature. And that's actually probably justified. So we are talking about people's health. If we make bad decisions, there are very real and bad consequences for it so every physician, before they start practicing, they take the Hippocratic Oath and they vow to first do no harm, and that attitude actually pervades not only in the physician community but the FDA and industry as well, so everyone wants to make sure that things are safe. Another thing is that medical innovation oftentimes relies on new science, and sometimes, new science happens a lot slower than new software, so it could be a tough thing to go there. We have a distributed provider system, meaning, as I mentioned before, you have one place for your knee, another place for your eyes, another place for your heart.

Same thing with the payer system, all these different payers all over the place, and then also, finally, both ethical and legal privacy concerns as well. So maybe it's no wonder why we haven't seen this big enormous flash, right? We haven't seen

someone come in and just completely transform this healthcare space, but what are really excites me and what I think should really excite you and I'm hoping that if you in the audience will wanna take a good hard look at healthcare because frankly, this is really a once in a career type shift or opportunity. What we are starting to see is a lot of little splashes and we're gonna start seeing a heck of a lot more than that, so coming into one disease space at a time, coming in and attacking one inefficiency at a time, and this is really gonna start snowballing.