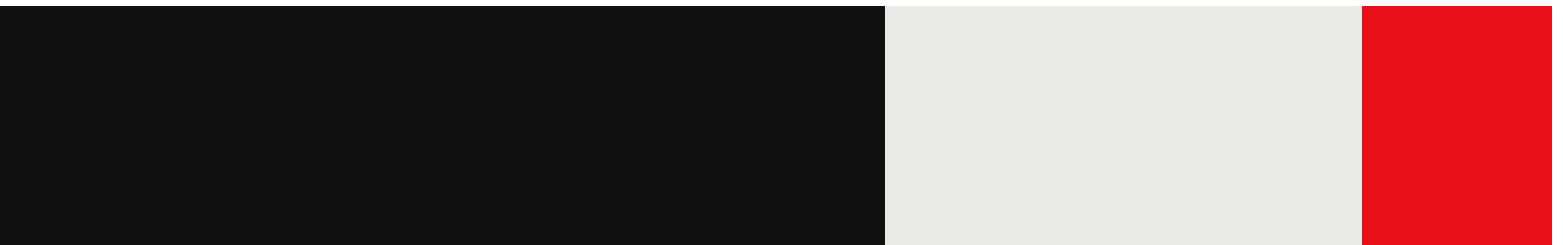


The Daily: What AI should (and shouldn't) be allowed to do in healthcare

Audio



On today's podcast episode, we discuss how physicians are thinking about AI, the specific problems in healthcare that AI is trying to solve, and what it should never be used for in the

space. Tune in to the discussion with host Marcus Johnson and analyst Rajiv Leventhal.

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Episode Transcript:

Marcus (00:00):

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Rajiv (00:20):

The AI was all over the place, and even though it selected the right answer in many cases, it wasn't able to supplement that with, "Okay, this is a step-by-step reasoning for the conclusion." So that's a little scary, right?

Marcus (00:40):

Hey, gang, it's Thursday, September 5th. Happy NFL season begins day. Good luck to everyone doing fantasy, unless you're in my league, then I hope you do terribly. Rajiv and listeners, welcome to The Behind the Numbers Daily: an EMARKETER Podcast. I'm Marcus. Today I'm joined by one of our senior analysts who covers everything digital health. He is based in New Jersey. It's Rajiv Leventhal.

Rajiv (01:03):

Hey, Marcus. How are you? Thanks for having me.

Marcus (01:05):

Hello, fella. Thanks for being here.

Rajiv (01:07):

Of course.

Marcus (01:07):

We start with the fact of the day. Where are the fastest trains in the world? Which country, Rajiv?

Rajiv (01:13):

Netherlands.

Marcus (01:14):

It doesn't crack the top 10, but you can get the Eurostar to the Netherlands. Is that what you're talking about?

Rajiv (01:21):

Yes.

Marcus (01:21):

The train that goes, yep.

Rajiv (01:23):

I've taken it. That's why it was my guess.

Marcus (01:25):

Okay. Yeah, no, it's a good guess. That's just outside the top 10.

Rajiv (01:29):

Okay.

Marcus (01:29):

So China. China is home to be fastest train in the world. It's called the Shanghai maglev, which can clock nearly 300 miles per hour or 500 kilometers per hour. Kayla Zhu of Visual Capitalist

notes it uses electromagnets to float above the tracks, which eliminates resistance, reduces maintenance costs, and allows for higher top speeds. The next fastest trains are about 30% slower. Two of them are in China, one's in Germany. They go around 217 miles per hour. Japan's infamous bullet train goes just under 200 miles per hour. And the Eurostar that you were talking about that connects London to Paris to Brussels to Amsterdam and other places, that clocks in at 186. So this train I'm talking about, the Shanghai maglev goes a hundred miles an hour faster than that train you took to Amsterdam if you could imagine it.

Rajiv (02:19):

Amazing how they could stay on the tracks at that speed.

Marcus (02:21):

Yeah, I hadn't really thought about that until now. Thanks for bringing it up. It is remarkable. China is currently developing a new maglev hyperloop train called the T-Flight, which travels through low-vacuum tubes at a record-breaking 387 miles per hour. So a hundred miles an hour faster than the current fastest. However, the goal is to make that train reach over 600 miles per hour. The line expected to be operational by 2035.

(02:47):

So Rajiv, you can get to London to Paris in two hours and 15 minutes. If you could go at 600 miles per hour, you could go from London to Paris in 45 minutes, hop over for lunch.

Rajiv (02:57):

Yeah, and then get back by the end of the workday. Unbelievable.

Marcus (03:00):

Yeah, I might be moving to London, Stuart, who runs the team, just for your information if this train gets invented. Anyway, today's real topic, AI and healthcare.

(03:16):

In today's episode, we'll talk about AI, how physicians are thinking about it, some of the things we're most concerned with with its introduction into the healthcare space. And then for other news, we'll talk about Big Pharma going D2C.

(03:30):

We start, Rajiv, with the lead, and like I said we'll talk to you about how the worlds of AI and healthcare are colliding. In a recent Wall Street Journal article by Anna Wilde Mathews called What AI Can Do in Healthcare and What it Should Never Do, she interviews Kaiser Permanente's, AI Chief Daniel Yang. He's been tasked with dealing with some of the biggest questions around how far and how fast to go with these new AI tools, she explains. And so Rajiv, we'll start with how are physicians thinking about AI at this point?

Rajiv (04:07):

So yeah, I think it depends on the use case. We are seeing that healthcare organizations, hospitals, health systems, medical practices, what have you, are really leaning into using AI to help relieve doctors of administrative burdens, such as documenting a patient visit by using a medical AI scribe tool. And many of them are available on the market and they're pretty popular. So that's kind of a lower stakes use case.

Marcus (04:38):

That seems like one of the real quick. That seems like one... So Kaiser Permanente, they're saying that they're trying to deploy the largest implementation of those clinical AI scribes...

Rajiv (04:47):

Yeah, a few weeks ago they just...

Marcus (04:47):

... in the US.

Rajiv (04:48):

Yeah, they deployed this, I think it was from a bridge. They deployed it across their entire system, which...

Marcus (04:54):

Oh, interesting. Okay.

Rajiv (04:55):

... it's a lot of people using it. So yeah, that's where we hear all the time doctors don't like the burden and the manual labor, or not labor, but the administrative burden tied to

documentation for documenting patient visits and then using that documentation to get paid by insurance companies. So if AI can make them more effective and efficient, they're obviously enthused about that.

(05:24):

But I would say generally they're skeptical and proceeding with more caution. I think for AI tools to be adopted more widely across healthcare, physicians want to see more safeguards and standards be put in place, and that's when we get into like, okay, is the AI going to be used to come up with a diagnosis for a patient? And that kind of scares a clinician, and you can understand why.

(05:51):

Just wanted to cite a recent American Medical Association survey, which is the premier group, association group of physicians in the US. They found that 71% of doctors said that they are more concerned than excited about AI or equally concerned and excited, but just 30% said they're more excited than concerned. So you see that level of trepidation and proceeding with caution that many physicians are approaching AI with right now.

Marcus (06:19):

Yeah, yeah. Actually, exactly what you said at the beginning, it depends on what you're using it for. If you're using to diagnose a patient, maybe not right now. However, if you're using it as a front line tool, then it has a lot of value in terms of creating this first draft of a clinical note that you get from that first encounter between a physician and a patient. It seems like it's the number one way that GenAI can assist US physicians to improve care team interactions with patients. That was from a Wolters Kluwer health survey in April. So it does seem like that's the entry point for GenAI with physicians.

(06:56):

Interestingly though, Rajiv, I saw that physicians ideal level of involvement in adopting these new AI tools for their practice, most, 50% would prefer to be consulted, 36% said they wanted to be responsible for it. So it seems like doctors are saying, or at least the majority of them, "I have other things to worry about. If someone could help me implement these things, I'd like to sign off on it, but I shouldn't be responsible for maybe, or it's an extra burden to be responsible for making sure these things are part of the practice."

Rajiv (07:24):

Yeah. I mean, the most recent data physicians show that about half of them are burned out. They think that they're working too many hours, that they see too many patients, and that they don't get enough support either from leadership or on the administrative level. So think about it from their perspective. If you're going to throw this technology, whatever it may be, in this case AI into their clinical workflow, that requires... You can't just ask them to use it the next day. It requires training, it requires education. Physicians want to know, again, if this is being used in a clinical sense, what were these AI models trained on? Can we solve this black box situation? We want to know exactly what's being fed into these models, and we want transparency, otherwise we might not trust it. And that trust is, I think, a big factor across the industry.

Marcus (08:14):

You said can this be woven into the fabric of my daily workflow because that's huge part of this. And that was something when looking at Dr. Yang's responses in this article, he said, "One of the biggest problems here is how do you make this fit into your daily routine as a doctor?" He was saying that developing the algorithm is the really easy part for AI. "The part that takes work and adds value is redesigning the workflow to accommodate the AI tool. There are a lot of great solutions on paper, but the healthcare system may not have the expertise or the interest to really redesign the workflow to maximize the benefit from that AI tool." What to you has been one of the most important learning moments from healthcare and AI?

Rajiv (08:57):

Yeah, I think if you're going to get physician buy-in, you need to find those two or three most pressing burdens or issues that you believe that AI can provide more or improve their productivity and efficiency. I think you mentioned the patient messages. We've seen examples of several health systems, Stanford, NYU, others that are deploying AI to respond to patient messages in between visits. So you have these AI-generated drafts, which are reviewed and edited by a clinician, but a patient in between a visit might send through a patient portal a question about, "I had this side effect from a medication you prescribed me, what do I do?" Or, "I'm experiencing these new symptoms." Some things that don't necessarily require a new appointment, but questions that the patient want answers to.

(09:47):

Doctors get so many of these messages now because of the increased use of patient portals. So these health systems are using AI to kind of go through the messages, filter the ones that are highest priority to doctors and even generate responses in some cases. And in a Stanford study, they found that clinicians reported a pretty significant reduction in everyday clerical burden and they had fewer feelings of burnout compared to doctors who were not using AI for this purpose. So again, that's kind of where I think the biggest learning moment would be. Find the two or three things that physicians need most help with not on the high-stakes clinical level, and then that's where AI I think can be most promising and most helpful.

Marcus (10:29):

Yeah. Patients are being told that the responses might be fulfilled by AI, correct?

Rajiv (10:36):

Yeah, it's a great question. I hope so. I really hope so. Yeah. I mean, just imagine that you have a question and it's an important question, it's affecting your health and you want to know if it's a human or an AI. But no, yes, I would assume that the health system would say, "This is an answer generated by AI, but edited by or reviewed by a doctor."

Marcus (10:36):

Yeah, buddy up.

Rajiv (10:56):

Yeah. That relieves doctors of time. They're not drafting the response as much as just kind of looking at it and making sure it's okay.

Marcus (11:04):

Any other specific problems right now that AI tools are trying to solve?

Rajiv (11:08):

Mostly on the, again, administrative side, documentation of billing codes, going over medical charts or visit notes. Insurance prior authorization is another big one. So this is a huge problem in the industry. A doctor prescribes a treatment for a patient. Oh, guess what? The health insurer needs to approve it, otherwise they're not going to pay for it. So the doctor needs to file all of these notes and send it to the insurer basically saying, "This is why I believe

this treatment, this medication is medically necessary for the patient." The insurance company says, "Yeah, but we actually want to see the patient do XYZ before they start this treatment before I pay for it." Right? Of course. That's a back and forth between doctors and insurers right now. And that's what we call prior authorization. The insurer has to authorize the treatment. This takes a lot of time out of doctor's day. They have to kind of manually go through these documents to send it to the insurers. So AI can help speed that up. Those are the biggest use cases we're seeing right now, again on the documentation administrative side more than anything.

Marcus (12:13):

Everyone listening to this show, at least in the states, is nodding along, oh yeah, prior authorization.

Rajiv (12:19):

And the insurance might just deny the treatment and say, "Hey patient, you're on the hook for paying for it." And then that's when they can't afford it, and then that's when their health gets worse, and that's when the doctor gets frustrated.

Marcus (12:33):

Right. For folks not living in the states, that can take a long time. This isn't like, "Okay, we'll get back to you today, or within the hour." This sometimes can be a week or two or three or plus.

Rajiv (12:45):

And then the doctor has to... The patient has to contact the doctor, then the doctor has to contact the insurer to explain why they believe it's medically necessary.

Marcus (12:53):

Yeah, it's a lot of back and forth.

Rajiv (12:54):

Sometimes you need your medication within the hour, as you said. You can't wait six days.

Marcus (12:59):

Yeah, exactly. All right, so in this piece by Ms. Mathews, she asked the question to Dr. Yang, "What are you most afraid of with AI in healthcare? What should AI never do? Is there a red line?" Putting that question to you Rajiv, what would your answer be?

Rajiv (13:14):

Yeah, so I would say really anything involved in clinical decision-making where there's not a human involved. Hallucinations are still very possible. The quality of the clinical data. We mentioned the black box. The quality of the data the AI models are being trained on, it's still kind of unclear, right? Is this great data that the AI model is being trained on? Is it patient data representing enough of a sample and an accurate sample that we can trust this tech from a clinical perspective?

(13:45):

There was a recent study I wrote about from the NIH and Weill Cornell, a medical system, and doctors and an AI model were both tasked with looking at clinical images and they were given a short description of patient symptoms and they had to select a diagnosis from a multiple choice answer selection. And the doctor and the AI model both did well in selecting the diagnosis, but where the doctor really outperformed the AI model was explaining how it arrived at that decision. So the doctor was able to say, "I followed these steps from my experience and my education. I followed these steps and arrived at this conclusion." The AI was all over the place, and even though it selected the right answer in many cases it wasn't able to supplement that with, "Okay, this is a step-by-step reasoning for the conclusion." So that's a little scary. Unless there's a human with the AI, I think it being used in high-stakes clinical decision-making, we're not there yet.

Marcus (14:52):

Yeah. And that's why when a lot of people used to do tests in schools. I don't know if they still do this, but you'd also have to show your workings as well as come to the right answer.

(15:01):

Let's end with this for the lead. So there's one other journal article. This was by Demetria Gallegos titled, Should AI Have Access to Your Medical Records? What if It Can Save Many Lives? And they asked readers their takes on the balance of privacy versus the public health

gains with people landing on both sides. What did you make of this question? Should AI have access to people's medical records?

Rajiv (15:26):

So this is interesting. I actually think this is one of the best potential use cases of AI in a medical or clinical setting. And here's why. Electronic health records only became widely adopted 10 years ago in health systems and in medical practices. And one of the biggest complaints since then we hear from doctors is, "Well, these systems are essentially data entry platforms and they're full of information overload. And yeah, they gather the patient information, but going through it and sifting through it and finding what's valuable to me and being able to compare it with another medical record from another health system, that I can't do." So wait a second. To me, too much information overload for humans to handle at once isn't that kind of the perfect task for AI? We can scan large volumes of health records and be able to help doctors come up with treatments or what have you, but I just think when you have this, again, data overload, that's where AI I think can really shine.

(16:25):

So yeah. So you have to, going back to your privacy point, you have to probably let patients opt in before releasing your medical records. Just any tech company that makes AI, but...

Marcus (16:38):

Or anonymize it potentially.

Rajiv (16:39):

Right. Or anonymize it. Yeah.

Marcus (16:41):

Yeah.

Rajiv (16:42):

But then I also ask, well, isn't big tech already doing that with our data just in a non-healthcare sense?

Marcus (16:48):

Yes, they are.

Rajiv (16:49):

So yeah, I think the reward outweighs the risk as long as... If patients say they don't want to be part of that, then I guess that's up to them, or you can anonymize it. But I think there's a lot of potential there.

Marcus (17:04):

Yeah, you have to show the benefits to people. It's like Google Maps, do I want to see the red line when there's going to be a traffic jam and know exactly how long? Yes, I do. And so people are happy to let whoever know where you are in terms of your location data if it's going to provide the right kinds of benefits.

Rajiv (17:24):

Yeah, I mean, if AI with a medical record can look at a subset of millions of other patients who maybe had certain symptoms or what have you and that can lead to a better medical treatment in the future, I think a lot of patients would be on board with that.

Marcus (17:46):

Arguably the greatest reward or benefit, more so than try and negotiate traffic.

Rajiv (17:46):

Yeah.

Marcus (17:52):

Yeah. All right, that's all we got time for the leads. Time now for the last part of the show, the fourth quarter. Today, in other news, just the one story, Big Pharma companies going direct to consumer.

(18:07):

Story one, Pfizer and Eli Lilly, two Big Pharma companies are going D2C. The first story here, Rajiv, is Pfizer. They launched PfizerForAll, a DC platform where patients can connect with telehealth providers, book vaccinations, and fill prescription medications for conditions like migraines, COVID-19, or the flu. This is an article by our senior health analyst, Dane Finley.

(18:30):

And then the other part of this, that's Pfizer with their PfizerAll platform. The other one is Eli Lilly, they also have a DC platform. You were writing about this and you've been covering this for a while because they launched it at the start of the year and you were saying that now they're making it easier for patients to access some of its medications without the hassles of insurance coverage or waiting a long time for a prescription. One such example you say is Eli Lilly will be selling their new form, its popular GLP-I weight loss drug, Zepbound, at a lower cost for patients paying out of pocket. But Rajiv, what's your take on these D2C moves?

Rajiv (19:04):

Yeah. These stories are intertwined and it's really a fascinating trend that big pharma is pushing further into direct to consumer. So look, your typical way of getting a medication is obviously going to the doctor, having them prescribe it, right? But there are some friction points there. Maybe the doctor doesn't want to prescribe it. Maybe you can't afford it. Maybe the insurer denies the coverage. Definitely some friction points before the patient gets the medication in their hands.

(19:29):

So you're pharma and your goal is to get as many of your drugs or medications in the hands of as many patients. It's a world that we live in US healthcare. Well, maybe you're increasingly recognizing that lots of consumers do struggle with figuring out if that drug is covered by insurance or if the doctor won't prescribe it to them or if they forget to pick it up at the pharmacy. This happens more than you think.

(19:51):

So Big Pharma is saying, "Well, how about I, the drugmaker come to you, the consumer, and you can just come right to my website and I will connect you with a telehealth provider. And the telehealth provider, if they deem it clinically eligible, will prescribe you one of our medications and you get it shipped to your home in two days." It's kind of fascinating. It's a little bit of a direct extension of drug ads on TV. When you see an ad of a medication say, "Ask your doctor about XYZ drug."

Marcus (20:20):

Yeah.

Rajiv (20:21):

Well, now Big Pharma is saying, "Well, you can just come to our website and do that." So it's really interesting. This is new. I'm fascinated to track it and see what comes from it. But Big Pharma, again, they want to get their drugs and as many out there as much as possible to as many patients. And that's kind of the for-profit world we live in in US healthcare, but it's definitely something that we believe more pharma companies will get into.

Marcus (20:47):

Yeah. Well, there was, in your article, you had this chart from the Kaiser Family Foundation asking where do people typically get the GLP-1 weight loss drug, 80% say direct from a doctor versus 11% who said an online provider or website. Doctors can't be thrilled about this then.

Rajiv (21:02):

No. And you might think, oh, 80% versus 11%, but I would actually look a little closer to that. That means one in 10 are getting the prescription from not your typical primary care or specialty doctor. That's a lot of people. These GLP-1s, Marcus, they say up to 30 million people could be taking them by the end of the decade. Okay, so 11% of that, we're talking millions of people who are getting these drugs from a non-traditional sense. And that's where Big Pharma is like, "Well, if these drugs are out there from him & hers and all these companies, telehealth type companies that are out there, we're just going to get into the space too. Why not?"

Marcus (21:45):

Yeah. Yeah. It seems like Americans are increasingly comfortable buying prescription drugs online. 88% get their prescriptions from an in-store pharmacy, but close to one-third of American adults use an online pharmacy. And that share jumps to two-thirds when you ask young people, and that's according to M3 MI.

(22:09):

That's all we've got time for for this episode. Thank you so much to Rajiv for hanging out with me today.

Rajiv (22:12):

This was fun. Thanks, Marcus.

Marcus (22:14):

Yes, sir. We'll see you soon. Thank you to John, who's editing this one, Stuart, who runs the team, and Sophie, who does our social media. Thanks to everyone for listening in. We hope to see you tomorrow for the Behind the Numbers Weekly Listen, that's an EMARKETER video podcast. So if you want to see our faces and follow along to some of the charts that we throw up on the screen, then you can do so over on YouTube or you can listen to us the usual way.