HLTH AI PAVILION VIDEO 3

VIDEO TRANSCRIPT

HLTH AI PAVILION VIDEO 3

It got quiet all of the sudden. It's our cue. Is this our cue? Are we ready to go? I'm going to say we're ready to go. Yes? Okay, lovely. Well, it's great to be here with all of you. And Andrew, and we're all, it's great to be here with both of you. It has been a heck of a three days. Many that are, you know, out there solving for healthcare in a lot of different ways, which gives me a lot of energy around the industry and just where we're at. Right? I'm thrilled to be here on stage. I feel like the two of you don't need an introduction. I'll say, hi. I'm Stacy Blanchard. I'm with Accenture. I lead our West Health business. But I've got the pleasure of being here with Dr. Andrew Diamond and Dr. Roland Illing. So, One Medical and AWS. And when I met the two of them, when we were prepping for this tiny little secret, they hadn't met yet. What was interesting is, so, you know, connections are important. But what's interesting is when you look at the totality of what these two are doing and then their organizations are doing for health, it's pretty impressive. So I'm excited for you to hear a little bit about that. I would also say so, Andrew, you were just at Health last year early into the Amazon journey.

Maybe not as much to share at that moment in time and a lot to share today, which is great. And obviously just announcements yesterday with Cleveland Clinic and the like. So exciting. And we're all and you were just speaking at Health in Europe, and going really deep on AWS and the impacts that you're having in healthcare. So, I hope that today is a build on that. And I hope, you know, the audience you're able to fill in, you know, questions and, and bring those forward as we work through the chat. So, we will dive in. So, healthcare industry. We've spent now three days and all of us in this field, we spend a lot of time, we know all the stats, right? We know that our spend is high, our outcomes are not great, and medical errors continue to be a challenge. Our talent challenges are significant. These are not moments where we can staff and train our way out of that problem. I think, you know, speaking as a technology firm, technology, though that's been developed, is amazing but hasn't always helped our clinicians.

In fact, I think it's added a lot of burden at times, and maybe some of the tech—could be how we're implementing the tech, could be the combination of the tech. This day of AI and Gen AI, I think we all believe it's different, and it's certainly here, and it is making a difference. And so, I think we all know a lot of those stats, but just to kind of remind us on that context, right?

We're in a challenged moment, but a really exciting moment. And the two of you have such a passion. Just in meeting you for a brief period of time and passion that comes through around primary care. You know, Andrew said, you know, he says, I'm one that says, you know, when my kids say to me and I'm ready to say to my kids, this is the field that you come into, then we're good, then we've actually made progress and we're not there yet. Right? But we're making headway. So, I think first thing I would start with is this, is to say so we're talking about how do we actually give clinicians back time for patients? And I think in this triple aim, we'd say maybe quadruple aim, that point of just clinician experience and time is what we're really focused on, giving joy and time back to them.

So, Andrew, maybe we start with you to just say, maybe share a little bit with the audience on why One Medical was it for you? And then maybe talk a little bit about what you're already doing with AI around clinicians. Great. Well thank you. Thanks for the question. Thanks, everybody, for being here. Thanks, Roland. It is good to actually meet you in person. I came to One Medical back in 2007 looking for an opportunity to be part of a transformation in primary care.

Recognizing at the time that primary care was in this vitally important position of leverage, being able to prevent disease downstream, prevent a lot of unnecessary spend, all the things that we know were wrong with the healthcare system, but it wasn't really, at the time, a target, a significant investment, particularly in terms of technology investment. And that was contributing to just a lack of interest in primary care from future clinicians. People didn't find it particularly exciting. And it was clear then as it is now, that there's just a lot of administrative overhead in this job, that it sort of is at the bottom of the pecking order. And a lot of the, just busy work tends to flow, but that certainly did at the time, and I guess it still does flow sort of downhill to primary care. But, I felt at that time, as did the founder of One Medical and then some of our early colleagues that if we invested in not just the technology, but also the processes and the teams that would be implementing that technology and really try to reinvent all of that, that we could create a much better, well, much better results across the quadruple aim, if not the quintuple aim. But the, the, you know, improve the quality of the care, improve the value of the care, improve the patient experience, don't make people wait forever for their primary care to help them get it the same day or the next day.

But also, improve the clinician experience. Make the technology delightful to use. Don't rely on individual heroics. Build teams to help support the folks on the frontlines. And so, we've done all of that at One Medical. We've already been able to show that we are taking out, relative to the industry standards, 40% plus of the sort of busywork that a typical primary care clinician will experience.

But it still feels like we're just getting started. And, you know, as of our announcement yesterday, implementing some really, amazing Gen AI powered tools at the point of care, it's an incredible inflection point, but it also feels, in many ways like it's just a continuation of One Medical's journey. I love it. I love it. And 40%, you know, if we could all hit 40%, this would be amazing. And I agree, we're just getting started. But I mean, I think it's a great stat to put out there. And that's your totality of your journey, right? That is not just Jen AI, that is all of technology because you're talking about rewiring the work, rethinking process, etc.. So, Roland, we did a recent survey and we had 83 of these executives in healthcare saying, yes, I see a productivity gain. Yes, I see an efficiency gain. Tell us a little bit about, you know, AWS, your vision of how you're impacting healthcare and how you're helping us advance this journey at speed and scale. Perfect. So, thank you very much. As you say, I'm also a physician. I'm actually an academic interventional radiologist by background. And so, I have been in a very fortunate position to play with some of the most cutting edge technology in terms of this is where I really kind of first came out. We're using clinical, tools and sort of digital tools for image analysis for many, many years. And the latest generation of AI is really been around for the last even eight or nine years. But certainly now this advent of generative AI is really making a difference. And I believe we are really living in the golden age of scientific advancement.

I think it's a very specific moment in time. AWS or Amazon Web Services is the technology arm of Amazon. So, I'm often confused with you. So, they say, ah chief medical officer of AWS. That means you must be looking after everyone in AWS, I'm like, no. So, my role is somewhat split. So, I spend my time looking at the end users of the technology.

So, be it national governments, state governments, research organizations, hospital systems, primary ambulatory care networks, payers and the health technology companies that support them. And those health technology companies are building on top of AWS. And the aim of AWS is to enable access and delivery of person centered care to improve outcomes at a lower cost by accelerating the digitization and utilization of healthcare data. And the aim is really to democratize access to this absolutely amazing technology that is cloud computing. And it's not just for healthcare. AWS provides this technology to all different industries that have the same root needs, which is high security and the availability scale around the world really quickly. So the resiliency and security are key elements no matter what industry you're in. I'm in the fortunate position to be in the healthcare side. And so how we can get our end users leveraging this technology well. Now, on top of this cloud computing platform, really there is no A.I. without cloud. So, many of the AI companies are over the top. 96% of AI and machine learning unicorns are actually platformed on AWS. And of the Forbes AI 50, 90% are on AWS. So again, we've got an incredible strength and depth and the tools to build out new solutions. So what we're trying to do is really think about the data. This is a data story and how we can think about text data, imaging data, voice data. So actually how can you ingest conversations and then put them into medical, make medical sense of them and then put them into context is really important. Now what we don't want to do is to build solutions.

So, we don't want to build an end-to-end solution. We're not building a new imaging system or a new electronic healthcare record.

What we do want to do is to make sure that the component parts for these things are available to builders. And so, for instance, if you're talking about imaging data, we built out a service which is a managed packet of code called AWS Health Imaging. And that can ingest imaging data, DICOM data, store it and stream it, but it is not a solution. So, we're working with the likes of GE Healthcare and Philips., who are building out the next generation of technologies using these tools. And that's why it's really good to see, Amazon One Medical building out, as part of their platform, leveraging AWS, Health Scribe, which is the service which can ingest this audible auditory data and make sense of it. So I think it's a really exciting journey and a really important moment in time where organizations are able to leverage it. Yeah. And and I think, we didn't even get into this, I think we talked backstage if we could probably run a half a day or a day, easy. I also think what you're doing in government and the connection to the public sector right across payers, providers, that community that you're starting to build in, the way that you're thinking about, not just technology, but the usefulness and the connectedness of the outcomes you're trying to drive in society is pretty impressive

I think another place I would go is just around, you know, so we talk about the technology. You talk about how scribe is one thing, right? One thing in the C of many, one of the comments you made roll into is, you said, you know, we need we need tech, but we don't need to see the tech. It needs to be smart. It needs to be with us. It needs to be functional, working. Maybe you talk a little bit about that from an AWS perspective. But maybe Andrew you talk about that a little bit from the physician perspective. Certainly. I think, as you're saying, it's important that the technology doesn't get in the way of the patient-clinician interaction. And we're working with some really interesting organizations that are trying to make the technology virtually disappear, because ideally, if a care provider is providing an engagement with the patient, you don't, it's not intermediated by a screen or a keyboard and a lot of that is happening now. And I think that's also contributing to the physician burnout that we're seeing.

So again, there's a Medscape study done in 2022 that showed 48% of clinicians were experiencing burnout. And of that, you know, 60% of that burnout was attributed to administrative tasks. And I think that is a really telling statistic. Because if the burden of entering records is really important, you need to capture the data, you need to understand the data and put it in electronic format is really important.

But the way that medical notes were taken in, you know, by hand and on bits of paper were reminders for the doctor. They weren't. And intending to capture the whole patient journey for later analysis. The point of medical records were reminders to the physician about what they'd last done with the patient. So, it was done by hand in hieroglyphics.

But how that can then be converted into actionable data is really challenging. So, I think we're now at a very interesting time where it's gone from personal notes. Just a reminder, doctor, about a patient to capturing data more broadly about patients, to actually how do you take that burden off the doctors again so they can go back to that, what they were doing originally. And that's where we're working with technology companies like deep Scribe like Pieces, technologies that are leveraging some of these, AI tools, in particular. Generative AI is really powerful in this respect. And so you can capture conversations and you can actually automatically pass it into notes, and you can actually have different notes for different needs. So, you can automatically create a letter to send to a primary care doctor. You can automatically create a letter to send to a specialist. And that is done behind the scenes. And so, I think the more that this technology can be used behind the scenes, not up front, the better. Couldn't agree more. I'm proud to be a part of an organization that is trying to build solutions based on, this underlying technology. I had a personal experience with Health Scribe not long ago, I think two weeks ago, where I went back to a visit that I had had with a not native English speaker, with a pretty thick accent in her 70s. A lot of complex problems, a very meandering, sort of classic primary care visit, talking about a lot of things, not all of which were really relevant to the patient's health, came back and looked at the Health Scribe sort of summarized clinical note. And it was astonishing how good it was. And I joked that it might have actually understood the real meaning of the visit better than I did. In terms of the clinical problem solving that there was that was taking place in the visit. But from my point of view, the most important thing that we can deliver with this technology is deliver back the time and the focus that that a human clinician has with the human patient.

Ultimately, we're here to serve humans, and as humans, we are hardwired to receive the advice and teaching and care and healing from other human beings. And when the technology is in the way, obviously, that's impaired. But I would argue that it's not so much that we don't want any technology visible in the room. I mean, I'm being able to turn to a screen and say, here are your lab results, and visualize that on a graph, that's immensely powerful. It's just when all of this other administrative work is building up and building up, and building up, that's what's really getting in the way. So, we're but we're at this incredible, as I said, inflection point where we have technology that's writing the letters for you, writing the note for you, sending the orders for you. That's restoring the opportunity to just invest the time and the connection eye to eye with people. Yeah, that's how we're really I think that's really interesting and actually build on that, because I think there are two elements that can give physicians or care providers back time with their patients. And I think one element is reducing the administrative tasks, either automatic note generation, the summarization, ingesting conversations and making sense of it. And the other element is to improve the quality of the interaction by using some of these generative AI tools to allow better understanding by the patients of their own health conditions. And so one really powerful aspect of some of the generative AI we're seeing is to allow it to put information into the context that patients can consume it, be it a different language, as you say, if you if you're speaking to someone who has a different background, it could be a language problem, it could be a social, an educational problem.

It could be there are aspects around, cultural differences which AI and generative AI can really pass well these days. And so if you can give information back to the patient in a way that they can consume, I think then that actually makes for a much richer dialog between doctor and patient. Great. Agree.. Love this. And I think, you know, there is upstream benefit to what you're describing and downstream benefit when it comes to claims in our back office. And, you know, funds flow and all of these things. I mean, there's a huge benefit to the front line. I think, you know, all the way through when we think about that technology. So, I think a couple of things is as you're going after technology, AI, Gen AI, at massive speed and scale. I mean, truly true speed and scale. You have to prioritize and make decisions somehow. You have to think about responsible AI. Everybody is talking about responsible AI. I think they're trying to figure out how to think about it and put responsible AI in practice. And then it's actually measuring value and success. We're not just doing and spending a lot, but we're actually able to say, look at what we've actually done. So, talk a little bit about either of you could take this, but prioritization, responsible AI, measuring success. How are you doing that? Well, in our case we haven't really changed our focus from the quality metrics that we've always been pursuing.

There's obviously the long-term outcomes that we care about in primary care, prevention of heart disease, prevention of preventable cancers. We we continue to track all those things. We continue to track the shortage of metrics. Who's getting screened for what, in timely fashion, and there are huge opportunities. I'm looking at our chief quality officer, Roger Ball, right in front of me, thinking about all the wonderful things that we can do with the assistance of AI to make sure that we are hitting those quality targets.

And also to better understand the quality targets that we're already hitting, but we haven't extracted the data from the universe of data that's out there in an unstructured format. So, I can help with that. We're continuing to apply the same safety standards that we've had for the world of primary care prior to the advent of all of this generative. I mean, obviously, we take safety extremely seriously, at one medical and in primary care in general. This is a new tool, also a new challenge. But I don't think that the fundamental goals have shifted. But we would also—and we've always had a goal of being at One Medical anyway, the best place to work in primary care.

So, we, are always looking at our clinician satisfaction, satisfaction with the work environment, but especially the electronic health record, the retention and our ability to recruit those clinicians. And all of that has been, again, it's been a priority for One Medical since our founding, but now we see, an amazing opportunity to improve our performance in all of those dimensions. And we got to continue to track that or judge our implementation of AI in terms of how it affects all of things. Yeah. Great. Well, on the on the technology side, responsible AI, I mean, AWS takes AI incredibly seriously and the responsibility that goes with it. So, not only is we have the most secure cloud platform available today and the most resilient, so it stays up more. It's actually how we build AI that's really important. So, where we have AI services that we're building out, we produce AI service cards, we call them, that actually show.

And users or show the developers that are using those services how they're built. It's actually what data goes into them, how they're passed, you know, all of the elements you'd like to understand about any component piece of any solution is available on a service card. Where we have organizations that are building our AI tools from scratch, we have a platform called SageMaker. And within SageMaker there's actually a SageMaker Clarify. It's an element of it. And so SageMaker Clarify can actually look at data sets and look at biases and say, okay, well actually, there's not a normal distribution we're looking at here. There's actually skew. And it can also look at changing data sets over time. So, if you build an AI for a certain use case for a certain population and then you tested it against a different population, it'll flag up saying, "Hey, are you aware this is for a different population?" So, there's technology tools that underpin that can be used. And we work with our developers really clearly about that. There's another piece around the regulatory side. And so, we worked with the White House. They had the White House voluntary AI commitments, earlier in the year. And so, we signed up to those and again, there are eight domains of responsible AI that we adhere to. And we're also one of the founding partners of the coalition for Health AI, which is actually a group of companies have come together to talk about what we mean by responsibly AI and to double down on it. But of course, having said all of that, it's really about the uses of the AI that is most important. So, we can provide guardrails. And so, we have a service called Bedrock, which can manage the access to different foundation models. So again, democratizing access to foundation models.

And that needs to be done in a highly secure environment. We need to make sure that that is done with great governance around it. But those tools we give to our end users to democratize access to it, because as you can see in the whole, you know—in health, there are thousands of people developing AI today, and we need to make sure that they are using the best tools available to them, to make sure it is done in the most responsible way.

So, it's very much a partnership between the technology platform, the using, and the developers themselves and what it's been used for. And again, it's great to work with Amazon One Medical, developing out those solutions in a very responsible way. So, I think it's a great partnership I love it. Another one we could do maybe a half a day or a day on is just responsibly AI, I think alone. So, when it comes to adopting and scaling AI, I was looking at one of our pieces of research that we do. We had 300 health care leaders. Okay, so these are CEOs, CNOs, chief medical officers, etc.. And they're looking to get the usefulness out of AI. Gen AI and technology, as we've talked, it's not just the technology, it is rethinking the work, and it is rewiring the way that we work. And and probably, you know, taking conventional concepts and just in rethinking those. Right? Interestingly enough, the CEOs and the CDOs were most noted as saying, those are the two roles that are responsible for thinking about rewiring work and really getting value out of AI and any, Less than 4%, noted the chief medical officer and the CNO. That could sound a little leading in my voice in the way I asked that question. I was a little surprised. So, just talk a little bit.

Maybe under you talk about, you know, how are you tackling that? You know, are you leaving everything to the CTO or are they leaving everything to you? Is it a team sport or other? And, you know, I think both of you commenting on this, I think it's important. Yeah, it's a bit of a, a softball I suppose, because it. Yes. It is most certainly a team sport at Amazon One Medical. We've been absolutely thrilled to be able to collaborate with AWS and with Amazon HST—Health Stores and Technology, to develop the software in very close partnership with the people who are ultimately using it and the the operators and the clinicians of One Medical deeply involved in setting the priorities for how the software features get developed. That's been the case since the early days of One Medical, One Medical was physician founded and physician-led for many, many years. And that DNA is still very much present at One Medical. And we've just grown up appreciating that if the technology isn't part of the workflow, naturally it's it's not going to be adopted. It's not going to make a difference. So, for sure, that's how we work. And that's how we collaborate with our colleagues throughout Amazon. Great. Anything, Rowland, you want to add? Yeah, very briefly. We, we see uptake of that, this technology really around through four, four lenses. We see mindset. And again, you know, the willingness to adopt and to think differently about the approach. People. So are people trained to use it. Because again, building on using the cloud technology as I said, is a fundamental change in the technology stack that's now available. It really, really is different. And so training the workforce is absolutely imperative. And then, you know, what are the processes involved to getting to that?

You know, how do we rethink the processes in light of this technology? And actually, the technology itself is only a fourth thing. And so, the technology has got to follow. but it really is the design thinking about how patients of the future will be looked after, I think is really exciting. And I think this is a moment in time that we should all look at the technology, understand the technology and work out how we can do things better. Good. We're going to go over a couple of minutes. I have a couple other ones. So, research that we've seen says 83% of provider executives are piloting AI, right? They're piloting. they're trying something. Only 10% are investing in the infrastructure. So, I'm going to give this one to you Ron and say, what do you think that's about? How are you tackling that? What are you seeing out there. What's your perspective or advice? Well, I think as I said, we're in the middle of a dramatic shift to cloud. So we work with many health systems across the US and internationally that are moving their entire infrastructure into the cloud, because fundamentally, the job of hospital systems and primary care organizations in the government isn't to run big data centers. And we can bring the power of scale to these organizations, which both offset costs and offset carbon emissions. For instance, there's a big, green element to this as well. And I think where this takes us in the future is somewhat quite different from where we are today. And adoption is going to be critical going forward. And I think well, as I said, I go back to what I said before, I think we're all beholden to understand the technology better and to drive it forward. And again, it's really important that we work with innovative organizations to do this. Great. Agree.

So, question for you. We're freeing up people's time. How are we deliberately rethinking how they then spend that free time? Well, the early concept of one medical was to make sure that that physicians or clinicians have adequate amount of time with the patients who are seeking our care. So, I don't know that we are rethinking it, as much as we are excited to be able to allow the, full use of the time that we've always made available in the typical One Medical clinician's schedule. You know, our visits at one medical are half an hour on average, which is nearly double the industry, I think number like triple the industry average at one point or another. But there's sort of, was it Parkinson's Law, that the work will always expand to fill the amount of time or availability that you have. When patients come in in primary care, we're inviting them to unload the totality of what ails them. In that visit and, and whether a patient comes in with a laundry list of things to talk about, or maybe only one or two things to talk about, it's very easy for that visit to expand for that patient to really get all of their concerns out. And for the physician to elicit more information and elicit more concerns. Not every patient, some people want to be in and out, be very efficient about it. And we certainly are happy to serve that sort of patient as well. But when a patient is able to really settle in and share the fullness of what's on their mind, and the physician is able to really dig in and invest in the relationship in that moment. And longitudinally, that's where the magic happens. That's where the real healing happens. That's where the real diagnostic power is enhanced. It's in time. So, I think at one medical Amazon One Medical, we've always been thinking about how we best use that time and again, what we're able to do now is increasingly enable clinicians and patients to focus on the interaction, as opposed to on the data entry and the data retrieval. Great, great.

Okay. We will wrap on, on on these. I think one is, when we think about equitable and ethical innovation, it's going to take a lot of partnerships similar to the care model, it takes a lot of partnership. You know, do you think this time of human and machine is this time where it's going to create that moment? We will be able to partner, we will have the next generation saying healthcare is the place I want to go? I mean, what what are you seeing at this time, if you look out into the future is is a question and then maybe you leave the audience with just what's your ask? You know, when you think about the hands, hearts, minds that they've got out there and their hand in this, what's your ask of them on it? I think it's important to understand this technology is live today. So we have production systems running using generative AI in clinics. In hospitals, we have solutions like Deep Scribe that are able to take this ambient voice and pass it into medical notes available today, have Pieces Technology that can do this note summarization and letter generation. Today, there are over almost a thousand FDA-cleared, solutions now that have AI incorporated into them as medical devices. So, I think we have we are in a period of change, but it is live and it's not some future state, it is today. And I think it's again, beholden on everyone here to really understand what that looks like. And everyone has a pain point that they're dealing with in their own work. And I'd advocate everyone to go and learn about the technology and see if they can bring it to bear against the thing that they are struggling with the most.

And if we can democratize access to this technology, I genuinely believe that we're in a time where we can make some absolute dramatic changes in the way that patients are treated. Couldn't agree more. Very, very well said. And what I would encourage all of us to be thinking about at this conference and beyond is recognizing that how quickly this technology is being developed and implemented. And I think many of us are here because we have some idea of where this is going, and that it's going to be pervasive, more even more pervasive than it already is.

By even next year's conference, we should be thinking about what we really want from one another as humans. That's, you know, something that's not going to change. We will still be human beings with human ailments seeking care from other humans. And we should be as clear as possible about what we want those interactions to rely upon, because we'll have humans out of the loop for a lot of health care. Of course, at One Medical, we want to keep humans in the loop to oversee a lot of the decision making that that could be left to AI, but I think just the average healthcare consumer is going to be getting a lot of care in entirely virtual AI, delivered realm. So we have to be clear about what we want the human to human interactions to be like. I think they're indispensable. Yeah. And to your point about equity, I think this technology really does have an opportunity here to increase the equity of access to care. So, for instance, we're working with an organization called Hurone AI that is scaling access to oncology care in Sub-Saharan Africa.

So, in Sub-Saharan Africa, you know, for every one oncologist there are 3,000 patients, as opposed to one oncologist every 300 patients on the West Coast of the US. And so, where areas are underserved and don't have availability, I think this technology will really bring equity of access to care in a way that will be, again, truly transformative. So, we're on an incredible journey. I think we've made a ton of progress and I think we are just getting started. I hope everybody gives a round of applause for two great, great gentlemen that are on this track. And, we'll say healthcare is the industry, you want to be in. And that's what we want to say.