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ALEX MAIERSPERGER: The list of people with the convergence of life sciences and health care expertise is pretty small. Today, we get the unique perspective of someone who has led at Pfizer and at Duke and UNC who has shaped policy and programs here in the US and all over the world.

I'm your host, Alex Maiersperger of the SAS Health Pulse Podcast. Today, we get the pleasure to learn from our Global Medical Director here at SAS, Dr. Steve Kearney.

STEVE KEARNEY: Alex, it's great to be with you. Really looking forward to the conversation.

ALEX MAIERSPERGER: AI and Large Language Models, LLMs, are dominating the news. Some would say we're at peak hype cycle. You meet with customers all over the world. Where are you seeing examples of this new technology that's making a difference today?

STEVE KEARNEY: Yeah. So everyone has to have a large language model, Alex. I mean, that's just the way it is today, right? If you don't have one, you're not cool. Yeah. [LAUGHS] The question is, what are we doing with those? How do we apply them? And specifically from a SAS perspective, how do we make them operational?

And so we see a lot of prototypes. We see a lot of pilot projects. But quite frankly, in many of those instances, our routine text analytics, natural language processing, computer vision outperform those based on the training that we see for the data models, and quite frankly, the cost. I mean, everyone wants one until you realize how much it costs to run these and to train these on such large data sets.

But we are seeing it in the spaces where people are doing mundane tasks where they're-- you know, data sets would really augment the patient experience. And so things like patient notes that would be reviewed and put into a treatment plan, there's really a lot of promise there.

Looking at long histories, large data sets of individuals that have patient files that are these very complex patient files that it's very difficult to really understand what all the other health care teams are doing. And so there's a great opportunity to look at that space. And then as you look at the patient experience, as they look at patient portals and other ways that they would augment data.

Now obviously, if we look across health and life sciences, there's true innovation too, looking at complex drug structures and really being able to dive deeply into the science. So there are some real advantages there, and there are some groups that are doing great work in that space. But what we're seeing is everyone's trying to figure out, what's the cost of these? How do they implement them? And how do they take them from prototype to true operations?

Now, we're going to see that scale soon. I think we're going to see our customers understand the real value in this space and then start using them in the most appropriate way that could be legal and regulatory compliant, which is a big issue. And then to bring value to the patient initially. But the providers are going to trail a bit in their adoption and in the way that they use these.

Now, some of these as we look at them-- for example, the way that we service analytics many times into a health system, individuals don't know that SAS is actually doing the work behind the scenes. And so if

we make it part of the workflow, then it works. If you have to go to other areas and then try to work throughout these kind of point solutions, then we're finding challenges there.

ALEX MAIERSPERGER: You mentioned the cost, the complexity, the sort of wide range of focus areas, and then you mentioned the important side. I think the government-- the governance and the responsibility of it. You have been a member since the inception of CHAI, the Coalition for Health AI. There's been a lot of fast and furious announcements coming out lately. What is CHAI? What are you doing? And what's exciting about the Coalition?

STEVE KEARNEY: Sure. No, I'm excited about the work that's being done with the Coalition for Health AI. When we first started, it really was a group of organizations, academic medical centers, technology, our leaders from FDA, CMS, ONC, a lot of government leaders that were trying to just listen to what was going on in the environment and say, wow, we really need guidelines. We need informed ways to measure what's going on in this AI space.

And so the Coalition for Health AI started as really just a volunteer group. Dr. Brian Anderson helped lead that. He was the Chief Digital Officer at MITRE. And now he's the new CEO, as one of those announcements you were talking about, the new CEO for the Coalition for Health AI.

And one of their statements-- and I'll make sure I get this correctly, right? The goal is to develop guidelines and guardrails to drive high-quality health care by promoting the adoption of credible, fair, and transparent AI. And that's what's on their website.

And the important of that and one of the main reasons we were brought into this was to look at, how do you make it fair? How do you make it equitable? And how do you make it transparent? If you have all these organizations working on these AI models, large language models, quite frankly, traditional analytics that we've been doing for years and years, how do you make it where it's explainable?

We equate that to the side of a cereal box. You know, looking at the ingredients, or what would make up a good recipe? But standardizing that so everyone understands the data structure, understands the models being used, and most importantly can replicate that and make sure that the answers are correct every time.

You know, one of the challenges, as we talked about large language models before, was the hallucinations that everyone talks about, right? So they come forth with this great answer, but it's incorrect based on the bias in the data and the training.

So the Coalition for Health AI was really a group that came together more than two years ago now that said, we really need to be putting out information, good thought leadership in this space. There's a couple of working groups that I was part of that put out some guidelines, and now there'll be more guidelines that come throughout the organization.

And there'll also be assurance labs that will work on these AI algorithms. So think about an accrediting body that says, these are best practices. And then they will accredit these entities that will help you walk through your algorithm process and the services provided with those. And then make sure that when you implement those, that you can register these models. And that the implementation, above all else, does no harm, but then is also transparent and unbiased.

ALEX MAIERSPERGER: I love the idea behind the guidelines and guardrails. You made the joke of everyone gets an LLM, or all the cool kids are using it. And so being able to see that, hey, we're using it on this area, and here's the sort of guidelines and guardrails that we have to be able to make sure that it's

effective and to be able to work with this group sounds like really meaningful work and really necessary and needed work at this time.

STEVE KEARNEY: And the great thing is we've been able to bring together the best and the brightest, right? And actually, I'm going to host at our Innovate in April Stanford, Mayo, and Duke Health discussing what this looks like for AI and large language models and the assurance labs. So we have a great opportunity to really understand from individuals that are delivering this every day what they think good looks like and how they contribute to this coalition.

ALEX MAIERSPERGER: Incredible. One of the areas SAS has had a long-standing focus is on cancer. From the research to the delivery side, data and AI have played and will continue to play a major role in treating and curing cancer during our lifetimes. Another one of your roles is with the CEO Roundtable on Cancer. Can you tell us a little bit about that?

STEVE KEARNEY: Sure. And it really is-- if you look at my pin here, this is the Gold Standard that actually comes from the CEO Roundtable. So way back in 2001, if you can believe it, president George HW Bush asked Robert Ingram, who was at the time the CEO of Glaxo Wellcome, what could CEOs do around the country to help with cancer prevention? How could they bring organizations together and really start focusing initially with their employees, but then with policy, with other entities? How could they change that dynamic, the perspective?

And so our founder and CEO, Dr. Goodnight, met with Dr. Ingram, and they all worked together-- met with Bob Ingram. They all worked together to put together the CEO Roundtable that then brought in other CEOs, and then put together a standard of, what does good look like for prevention? And so there's a couple things here. They have a Gold Standard for workplace, which is what this button is.

If your workplace actually goes through this process and implementation of all the preventive measures, there's actually a survey, a review that's done by the CEO Roundtable. And you get the Gold Standard if you meet all of those criteria. And it's a really big deal. A matter of fact, Eli Lilly was in part of the first 100. They were the 100th company to be certified in that space.

So as you work through this process, they realize, wait a minute. We also need to bring data together. So another component of this is what's called Project Data Sphere where they bring data together for research, big data and analytics. So to give you a perspective, there's over 135 peer-reviewed journal articles published on this data. And also, synthetic or control arms that can be used from this data.

And so really groundbreaking work. SAS is very proud to not only be part of that, but Dr. Goodnight believes in this so much that we support the CEO Roundtable, and we help them host their events. We help them on campus as far as meetings and that type of thing.

And then they have a new initiative called Going for Gold that's with the universities. And so that's applying the same kind of measure and rigor around prevention and wellness to universities. And so they've been able to implement Going for Gold for universities most recently. So really exciting work.

ALEX MAIERSPERGER: Sounds like we could do an entire session and conversation on all the work that's going on in cancer. And cancer just touches all of us so personally and affects us in so many ways. Whether we get diagnosed with cancer at some point in our lifetimes or not, it's often a person close to us, in immediate family or surroundings. And so definitely incredible to hear about the work that's going on on the data side, on the technology side.

I've also long said that the future of health is together, and I love hearing about the inclusive nature. It sounds like bringing the academics, bringing the CEOs, bringing people around the table, such meaningful work. And looking forward to seeing all of the future that that brings for us.

STEVE KEARNEY: Obviously, we've been happy to also bring in analytics and what that looks like and how you can scale it. So more than three years ago now, we hosted an AI summit looking at oncology. And so again, with our partners at CEO Roundtable, being able to bring those groups together, promote what everyone is doing, publish what everyone is doing, I agree, it's really important.

ALEX MAIERSPERGER: There's a lot of algorithms getting attention lately, everything from coordinating care, outreach to patients, making diagnostic predictions. Some of this attention has been good and some of it has been a little bit more worrisome. The data changes, there's new data that enters the picture. The model degrades over time. Where does SAS fit into this future of prediction and capability?

STEVE KEARNEY: You know, that's a great question, and that's one of the questions I get asked all the time. It's an interesting dynamic. As the founder of the statistical analysis system-- so if you want to talk about the true kind of first AI and machine learning, we did it 47 years ago, which is pretty amazing.

But then as we've continued throughout our journey, we have been the world's leader in analytics, but we also have had to lead in that space that you can trust it, right? You can trust the data, the data governance, the transparency that we have throughout the process. And then these outputs are repeatable.

And so we've been asked pretty much across the board-- I love the way you said everyone's working together on this. This is an and conversation. This is not an or. It used to be everyone uses one platform or another or they use one vendor or another.

But you know, we've been very fortunate to not only be a world leader in analytics, but we've had to become a world leader in bias in large data sets, a world leader in bias in protocols and bias in algorithms. And so we really sit at the table now with all of these entities, whether we're talking here in the US or globally, ministries of health, regulatory agencies, advising them on the way that we would approach this.

We have a Data Ethics Practice run by our VP, Reggie Townsend, who really has been driving innovation in this space and helping people understand that this is part of our culture. This is what we do every day.

ALEX MAIERSPERGER: And, not or, is such a strong statement for how technology and people will need to work together for a healthier future. Love that.

Finally, there's always been a hope that the things that we learn at the bedside in health care delivery make a difference in what we learn in labs on the life sciences side, and vice versa. So the promise of life sciences and health care company convergence. You get to lead teams across both parts of this industry and all the parts of the world. In what ways is this convergence promise coming true?

STEVE KEARNEY: You know, Alex, I'm really fortunate, and I get to work with great people like you, of course, and your team, your global team. What we're seeing is everyone is saying, we have to get closer to the patient. We have to make sure that the information is shared throughout the ecosystem, that we have the ability to make decisions when they matter most. And that's what SAS is, we do every day.

And so we truly are seeing people push for interoperability now. Before, it used to be one standard or another. Most people, including our EMEA colleagues that we had on campus and at HIMSS last week are talking about, OK, this FHIR standard that everyone's been talking about, it's real, and maybe we should be mapping to that.

So we're taking that a step forward. We're actually using it as a common data model. We think we should be using standards as our common data models and our solutions. And if you do that, then everyone's aligned.

The challenge with interoperability before is everyone was using different standards. They were using private, proprietary data models. When you tried to map that information, it didn't map well. Obviously, in many instances, it was in the text field. It was in other fields that were not really operationalized, either by EHRs or by our CROs and other entities that bring together our data for life science companies.

And so now what we're seeing is the life sciences companies are saying, hey, we're going to skip the electronic data capture versions that we used to do for all of our kind of repeatable data sets, bring that into another data lake. Can we get it from the FHIR standard and just get the pieces that we need, make that operational?

And the more data we get from all these patients, we're going to have to do that. We can't consume all of the data in one place, but we can consume the most important parts of the data, surface that so everyone can make good decisions, use AI and ML and large language models to do some of the mundane task of looking at routine images, looking at routine texts, putting that into a consumable format. But using true predictive analytics in this space to actually deliver that interoperability is what we're working on every day and where we really see the promise.

ALEX MAIERSPERGER: The only thing stronger than your life sciences and health care convergence background and expertise is the energy and kindness that you lead with every day, so thank you for that. And Dr. Steve Kearney, thank you so much for being here.

STEVE KEARNEY: Thank you, Alex.

ALEX MAIERSPERGER: Thank you for joining us as we shape a healthier future with data and AI. Join as a guest or join the conversation by sending us a message to thehealthpulsepodcast@sas.com. We're rooting for you always.