



Deloitte AI360 Podcast

Jim Rowan, Head of Applied AI

Aditya Kudumala, Global Life Sciences & Health Care AI Lead

Title: S2:E7 | The string of pearls: Driving value with AI in life sciences

Description: Efficiency is a top benefit of AI, but how do you create value beyond that? Aditya Kudumala, Deloitte's Global Life Sciences & Health Care AI lead, breaks down the "string of pearls" methodology for value creation and how the continuum of AI technologies can become a lever for broader transformation.

Duration: 08:11

Jim Rowan:

Hey, Aditya, how you doing? Great to have you join our AI 360 podcast. Welcome.

Aditya Kudumala:

Thanks, Jim. Love it. Excited to be here and have a wonderful dialogue.

Jim Rowan:

So you've been at the forefront of everything going on in AI and life sciences. I think we tap you for like the, what's the coolest stuff, what's the new use cases that clients are doing. Maybe you could just give us a little bit of a sense of what role you've been playing in the market and some of the overall industry types of use cases that you're seeing from an AI perspective right now.

Aditya Kudumala:

Sure. Thanks, Jim. So, from a Deloitte perspective, I'm the global leader for our life sciences and health care play for AI globally. And, second, more importantly, also play a role on the innovation side. Like as Jim, you're talking about, like what do we do at the edge that we can bring it back into our offerings to our clients and also accelerate that journey. Given that continuum that we are in always, given that the AI state is always continuously changing, it's good to have those roles to really not only experiment internally, but also with our clients co-collaborate because they're also investing quite a bit. And how do we really, truly, collectively co-innovate and solution the next evolution of their businesses or offerings—whichever you want to call it.

Jim Rowan:

I love it. So, you guys have been at the forefront of thinking through, I think, what you refer to as the "string of pearls"—how you link together some of these AI use cases for clients. Maybe you could talk through a little bit of the methodology first because I feel like that's been a really big unlock for our clients in terms of driving value.

Aditya Kudumala:

Yep. So it took a while for us, Jim, as you were in part of that journey from day one, right? We've done tons of these use cases, but we've always led with the value. And when we started looking at the value, we looked at, "hey, how do we really create, more than just the efficiency? How do we truly transform?" Given our clients are always looking for—given the change from an AI perspective that it can bring—they're looking at as a strategic lever. So if I want to use this as a strategic lever, how do I truly transform their business within their business, their processes within their processes, the different value streams? So we took a "string of pearls" approach where we looked at the capabilities that [are] required to run those businesses. If we string together those use cases that will truly transform those capabilities, how do we align with that and I think—and also we took into context not only interconnecting those capabilities, but also looking at existing investments that they're putting in core systems. The data that they're purchasing, generating. Obviously

they've invested a ton on traditional AI data plus analytics, whether it's prescriptive or data science and all. And now it's Gen AI and now agentic AI. How do we bring all of that together? And that's the methodology that we took together in terms of a string of pearls and then executing in the marketplace.

Jim Rowan:

One of the things, and you were kind of going there towards the end of what you were describing, is—I love how you describe it in terms of linking also these different elements of technology together, because I feel like we've just been on the Gen AI craze for a little while and then you dig under the covers about what the solutions really are and it's traditional machine learning; it's some data science work that goes into this. Could you share a little bit more even on a specific example—maybe something in R&D or patient engagement or areas like that—where you're kind of pulling some of these technologies together?

Aditya Kudumala:

Yeah. Just to take a step back, Jim, when we looked at that overall value story that you spoke about, we looked across the entire, we published that, we did 400 plus interviews, we did our strategy work across a number of these clients. And when we looked at it, we looked at about 75% of the value is generated by the R&D commercial and supply chain manufacturing organizations. And then the 25% obviously is the enabling functions and all that. But within that, 60% was cost efficiency and also what you call the growth aspect of it. And to your answer your question in a different way, when we looked at that, we brought those elements together to lead by that value, we had to structure these, I would say, these programs in such a way that they're leading in, so that you're not building all of those string of pearls day one, but building those blocks in terms of reaching that North Star in that particular function. So for example, let's take the R&D side where, as you know, to submit for regulatory approval, there's tons of documents that you need to generate. So we looked at how do we look at this end-to-end document generation submission life cycle? If I can get this product into market, in the hands of the patients, three months ahead, it's a huge impact that is across the ecosystem itself. That's one thing if you look at it. If you can look at the commercial side, AI-generated content, there are so many capabilities that go along with it. But if we can string it together, can we reduce the generated content, which arguably has to go through medical legal review six to nine months down to 11 to 12 days, can we do that? And we are able to prove that out. And we can spend all day going through a lot of use cases, but that's how we looked at it. Value, connecting those capabilities, looking at it, trading it, creating the results management office to really measure that, and transform the organization through change.

Jim Rowan:

I've got to imagine that results management office piece is such a critical thread to this as well. Because we hear so many inbound questions for "How am I measuring ROI from an AI investment?" Any like key learnings for our audience about that specific capability?

Aditya Kudumala:

I think there's a notion that once you put something in production suddenly the value is generating day one.

Jim Rowan:

It doesn't just happen automatically?! (laughs)

Aditya Kudumala:

It is... it depends. It's uneven, the value realization, right? Let's say you do maybe get the value realization day one X percentage, but there are certain use cases that also require, let's say, the op model change, our business process reengineering model, which takes time. Change, anything in an organization—including ours, Jim—takes a while, right? So we've seen, what we've done is, even for the value realization aspect of it, we have made the expectation setting—getting the users brought into it day one (not after we go live), taking them through the journey, having them—the advocates, creating champions, or evangelists, or whatever you want to call it—[come] into the organization, and having them truly usher their respective organization [and] their communities to adopt and grow and value. We've seen exponentially being realized that way, then trying to build something and let them come and then experiment and go from there.

Jim Rowan:

Yeah. Well that's very helpful advice. Maybe one other thing: If you could just sort of help us link the concept of string of pearls you mentioned to all the things that we're hearing now about agentic AI—because, again, another topic you can't really get on a call and not have it mentioned. So how is that link into string of pearls?

Aditya Kudumala:

I would say, Jim, it's the next evolution of it, right? And then the way I look at it is the notion that needs to change—because everybody thinks about an AI solution, like, "Oh my God, I'm going to need to learn another tool." But I think there needs to be a mind shift in terms of how can I teach the machine to work for me? And that's the evolution that we are doing within, whether it's the value streams that we talked about, or the string pearls, or the processes. How do we truly augment these machines to work for that particular persona or person or a group of systems? That has really taken up—given that, as you can imagine, our space is huge in terms of data regulatory and all that. There's multiple systems that we need to interact with. I think it's really exciting to see the early promise of the agentic, in terms of how we can truly transform the life sciences industry.

Jim Rowan:

That's awesome. Well, Aditya, thanks so much for taking your time to chat with us. Some great insights from the front lines of what you're doing from an AI perspective. Really appreciate it.

Aditya Kudumala:

Awesome. Thanks, Jim. Thanks for having me on. Talk soon.

Jim Rowan:

Take care.

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