AI LEADERS PODCAST #50: AI AND MACHINE LEARNING IN THE UTILITIES INDUSTRY

AUDIO TRANSCRIPT

Bob Lutz [00:00:00] Usage of the cloud becomes better. I think, you know, that lifts everybody up. From an industry perspective.

Jan Erik Aase [00:00:13] Hi, I'm Jan Erik Aase and welcome to AI Leaders podcast. So, it's my privilege today to be at the table with two very distinguished gentlemen. First, Scott Tinkler he is the senior managing director and global Utilities lead at Accenture. He's been there nearly 26 years and has done pretty much everything there is to do around this, this market and this industry. And before that, he was in aviation. So, some exciting background. Scott, looking forward to talking to you. And then also Bob Lutz, he is a partner and utilities industry lead at ISG, same company that I come from. He's been there for eight years with numerous positions in consulting and delivering customer information systems such as OT and IT, regulatory and security compliance, ERP, customer experience, analytics, pretty much everything you can think of. Gentlemen, welcome. And it's a great opportunity to talk to you about these important changes and expectations in the power and utilities industry. And I guess I should introduce myself. I'm Jan Erik Aase and I'm a partner and I'm the global head in the team of research analysts in our research team. And I have been with ISG for nine years. We have a series of studies that we do, and one of them is around the power and utilities industry. It's my privilege to also identify Accenture as being the leader in the last three years that we've run that report, the introduction of artificial intelligence and machine learning in

this area to actually impact both the grid modernization as well as the affordability issue. So artificial intelligence, machine learning. Scott, tell me, there's been a lot of advancements in both areas, in fact, some great advancements. Have any of them been specific to the utility companies and how is that actually helping them?

Scott Tinkler [00:02:04] Yeah, absolutely. Listen, you know, let's be clear. Utilities have historically they've been laggards in the area of data analytics and AI. And it's you know, Bob mentioned this earlier. Utilities are fabulous at collecting data. They probably collect more data than any other, you know, any of their actors in any other industry. But they've been, I'd say, less good at analyzing that data and then acting on this data that said, they're really starting to make some great advancements in the area of data analytics and AI, which is exciting. And given the context of everything that we've been talking about, from grid modernization to the energy transition to keeping prices low, it couldn't come at a better time, right? Because it's, you know, I'd say AI and analytics are going to help to drive down costs. Let me give you just one quick example. We're working with a large gas distribution company in Italy right now and helping to build, I would say, technology and cloud-based technology using AI in their control center for their distribution assets. And you can imagine, as you put more and more IIL with IoT reality sensors on the grid, there's a tremendous amount of information that is coming into that control room, probably more than, you know,

any single operator can manage on a daily basis. So what AI is, what they're using AI to do is to better manage those that data better manage those alerts and monitor the system to help the control center operators understand what is really critical for them to focus on. Whereas what's, you know, something that's just going on during the course of the day. So, AI is playing a really big part in a lot of different elements of the value chain, and we see that continuing on really very, I'd say, very strongly over the next several years.

Jan Erik Aase [00:03:59] So Bob that's a really great example. So what Scott's saying is it's not just about the bots that there's actually analytics, there's the collection of data, there's use of IoT. What have you seen over the last 2 to 3 years specific with our customers? Is this something that they're taking advantage of or is it unique in like the case study that Scott shared with us?

Bob Lutz [00:04:21] I'd say it's absolutely growing. And I love that use case because I think it speaks to one of the most powerful areas where AI and ML can be applied, and that's that there's a tremendous amount of data coming in. But, you know, let's face it, pouring through that task is very repetitive. You're looking at literally millions of data points until you find the one data point that actually matters. So that's the kind of task where actually humans are not geared very well to do. We're not geared to look at endless ends of data stream and point out that one piece of data that actually needs that actually matters. So, use cases like that where we're taking advantage of IoT sensors and the amount of data that gets multiplied across literally thousands to make better decisions about take of taking either corrective action or to trigger proactive maintenance. Those kind of use cases I think is just a perfect application for AI. And to your question, we're starting I'm starting to see that happen within customers. But I think the frontier for innovation is still in front of us. And honestly, that's an exciting part.

Jan Erik Aase [00:05:43] Yeah, and I think what we all realize is that it just doesn't happen overnight. So, Scott, part of it is their trust in you. You spoke earlier about this end-to-end view that Accenture has. So, it's not only in them trust in you, but also the other partnerships that you bring to the table. So, can you talk a little bit more about how the importance of the relationship with your client has enabled this and your ability to then bring in other partners outside parties and then together you're making these changes?

Scott Tinkler [00:06:14] Yeah. One of the things that we're pretty proud of is our, I'd say our relationships with our various ecosystem partners across the spectrum of, you know, from you know, from, you know, the T&D part of our business, the client core, as I talked about before, but also in the technology part of our business. So, we've got relationships with all the hyperscalers like who are really, I'd say, pushing the boundaries of these, whether it's Microsoft or Google or Amazon. We've got relationships with the big enterprise software providers like Oracle and SAP or really also kind of really pushing the envelope on these areas. So, our ability to help them understand who's the leader in, you know, various spaces is incredibly important and then making sure that we're building helping to build these, you know, collaborative partnerships to help them get to where they need to get to. Let's face it, everyone, there's not one single party out there that is great at everything in this space, because as Bob mentioned, it's a space that's evolving. Right? So, our part of our job is to make sure that we're putting the right pieces together to help our clients. I'd say get through their journey a little bit quicker and a little bit better.

Jan Erik Aase [00:07:28] Yeah. So, this industry's Uberization, their move into retail distribution. All of that requires a different type of operating model, a more efficient and innovative operating model. Are those platform

providers you just talked about and let's talk specifically about Oracle and SAP. Are they bringing solutions to the table that are specific to the utilities industry? Do they know what they need and how are you in that partnership helping them bring those solutions to the table?

Scott Tinkler [00:08:04] Yeah, it's a great question. Listen, I kind of we talked about data a little bit. And, you know, part of the part of being great at data is how do I figure out how to monetize that data? And, you know, so one of that's something that utilities again, have an opportunity and great opportunities to really, I'd say, delve into. And you know, some of our you know, you mentioned Oracle, one of the kind of the examples that comes to mind is in Australia right now there is a I'd say it very high levels of DER penetration, distributed energy, energy resource penetration over 32%, probably higher than any of the developed countries in the world. And so why is that important? That means that in the next 10 to 15 years Australians will have a DR penetration of closer to 60%. That means that the amount of electrons being sold by Gen Taylors, right, is going to be less and less over time. That requires a new business model, right? I mean, it's just less electrons, you know, the same amount of players, there's less to go around. So, Gen Taylors have to be really smart and innovative about kind of how do they create new products and services and business models to be able to support their customers in this ever-changing world. Well, that's where the data that's where data monetization comes in. I can now use that data to actually say, geez, I'm going to now enroll Bob into a virtual power plant campaign. Right? And now I'm going to help him to aggregate his load from his rooftop solar and his storage device into a broader community. That's a completely different business model than, you know, the traditional selling electrons. This is you know, this is something that our folks at Oracle and others are kind of really looking into as part of their derms platform and really kind of help to elevate that and help to address

that. But this is something that I think we're going to see not only in Australia, we're going to see in Europe, we're going to see all across the globe in the very short future. So, this really, really very exciting stuff.

Jan Erik Aase [00:10:13] Yeah, that's really cool to imagine the sources and the end consumer being able to be involved in that. So, Bob, we've talked about the use of AI and ML. It assumes that there is a very good cloud adoption by all these utility companies. Now, do you think that their position in the cloud was a result of COVID and now that there's not so much pressure that they're going to back off, or have they taken that leap forward and now they're moving full steam ahead?

Bob Lutz [00:10:47] Well, it's interesting. I think that the impact that COVID may have had on that is probably one of the least understood. You know, for this particular industry, it's more of an issue of some of the very restrictive accounting rules, particularly U.S. utilities have had. There are a lot of smart people within IT, within utility companies who they get the cloud. But when you're forced to account for cloud in a way that hurts yourself financially, there is a natural incentive to avoid it. I think what we've had is really some of the players that Scott mentioned, for example, some of the Hyperscalers are now getting involved. Certainly, Oracle and SAP themselves are getting involved. They're getting there... They're deepening their understanding about some of the downsides of some of the, you know, capitalization accounting rules that apply to utilities that have really held them back from cloud adoption to the point that we can ease those rules a little bit. So, usage of the cloud becomes better. I think, you know, that lifts everybody up from an industry perspective, and it allows some of these technology solutions which have been artificially constrained. If you kind of step back from an accounting rules are a constraint. To the extent that those get eased a

little bit, then I think you can see, you know, leap a leap forward kind of effect on how some of these tools can be used.

Jan Erik Aase [00:12:19] That's great. Well, it's good to hear that they've made some specific advancements in this industry. What signs do you have, Scott, in working with them, both the platform providers as well as the Hyperscalers, that they have been encouraged by this and they're going to move it forward because power and utilities is something that everyone, including them, runs their business. So, it's to everyone's best interest that we really make some advancements here. So, what are we going to see over the next 2 to 3 years from them that will even take us that much further?

Scott Tinkler [00:12:51] Yeah, I mean, Bob hit this perfectly. I mean, listen, this is you know, we have so many challenges in the industry and opportunities in the industry right now. This shouldn't be one of us. This is something that we can control and we can get past. And, you know, making, you know, kind of, you know, aligning and standardizing the rules around capitalization of cloud is just something that we should have done yesterday. It's really, I'd say, constraining innovation. Right. And that, to me, is the really the very important thing that we need to be thinking about as we move to this next stage of the energy transition. I mean, we all understand how cloud can positively impact cost to serve. It can positively impact, you know, the, you know, the overall I.T operating model. But we really need to be using cloud to help us to innovate right? And so that we don't have to invest, you know, just a tremendous amount of money every time we want to try and, you know, move from a concept to a pilot to a scale. And this is one of the things that cloud just allows us to do. So let us do it. That's what we need to get on with it.

Jan Erik Aase [00:14:03] Exactly. Gentlemen, thank you for this discussion today. So, we've been talking about the use of emerging technologies, specifically AI and ML, and it's all about the data. That's where we're leveraging it to begin with. But that's just the start. There are so many opportunities. It really is relying on the hyperscalers, the platform providers and the great partnership, the specifics that they are using to make these advancements for the utilities industry. And finally, the use of cloud and moving that forward, not looking back and getting rid of some of those tech regulation or compliance kind of issues that really aren't helping us, but they're actually hindering us. And so that partnership, hopefully between all of the parties is going to take us take us forward. Thanks again for this great opportunity to speak to both of you. Clearly, you know, the industry really well. You're passionate about it and it's really been great to talk to you and learn some more. Thank you so much.