Episode 161: How AI is the Next Paradigm Shift with Arkestro's CEO Rob DeSantis

Rob: [00:00:00] The future of supply chain is that AI is going to be able to deliver transformation that was going to unlock a magnitude of value larger than we even thought possible. And the world is gonna be a better place with it. People are going to be happier at their jobs. Suppliers are gonna be happier with their relationships with their customers. And AI is gonna allow humans to be humans.

Richard: Hello and welcome to the Future of Supply Chain, a podcast where we discuss hot topics, best practices, and the latest innovations in today's global business. I am Richard Howells, and today I'm joined by Arkestro's CEO, Rob DeSantis. We're gonna be discussing why AI is the next paradigm shift for supply chains and what we can learn from previous paradigm shifts. So Rob, it's great to have you on. Welcome to the podcast. Maybe you can quickly introduce yourself and your role at Arkestro?

Rob: Yeah. Thank you, Richard. As you said, I'm the CEO of [00:01:00] Arkestro. I'm also a co-founder of the company. My relevant past after starting my career as a mechanical engineer. I got into technology and technology, sales and engineering software, and that transitioned me to the world of software. And in 1996, I co-founded a company called Ariba Technologies, which became the 800 pound gorilla in procurement, which SAP later bought, 15 years later or so. And. And over the years I've done a variety of different things from I was one of the founding angel investors and board members of LinkedIn and I'm and involved with a company called Bloom Energy and a couple other software technology companies like in the CLN space called Aloft on a cross border payment company called Do Send. And then uh, five and a half years ago now, my world got turned upside down when I got introduced to my other co-founder of Arkestro, a 34-year-old data scientist that was re-imagining procurement right out of school for data [00:02:00] scientists or actually at school of data science he had his school job was procurement and he couldn't believe the lack of data usage in procurement. He got off school, got a job in procurement consulting, and worked with Fortune 200 companies for 14 years doing every type of procurement you can imagine: direct, indirect, supply chain, logistics, auctions, reverse auctions, sole source, single source, you name it. He did it. He also had focus on Human Behavioral Game Theory and Behavioral Science, and he was curious as to why that wasn't used in the area of

procurement and when I met him, he told me how he combined data science and human science to provide the optimal outcome for thing every line item that was bought so that lit a fire under me. And here I, we are five years later, I'm the CEO of this company trying to transform how business to business e-commerce from the buy side is done.

Richard: It's great to have you on. You've got a vast amount of experience and throughout your career you must have witnessed several major shifts [00:03:00] in technology and in business. So can you describe some of the most significant paradigm shifts you've seen and how they've shaped the supply chain industry in particular?

Rob: For sure. Yeah, so I've seen three major paradigm shifts over my career. The first one being the internet, the second one being the cloud, and the third one now being AI. And there are some commonalities in all of 'em that I've experienced and seen. And then other, each one has their own little nuances. I would say that the big thing that I've seen in all three is something I call turbo lag. And that is the technology is there. The smarts are there, but the fear of doing something tremendously new. For example, I remember in the internet when we were trying to sell Ariba, there were many companies, corporate Fortune 100 companies that wouldn't even allow the internet inside the corporation. So we had to start off selling Ariba with the intranet. [00:04:00] Then in the cloud space. A lot of companies became afraid of putting their data in the cloud. And that, that created a turbo lag. And now we have AI, which has created a similar type thing. People are like what are you gonna use my information for? And how is that gonna be consumed in the rest of the world and what have you. So, that turbo lag and that fear has been something that's been pretty common there with respect to supply chain what I've found is that each step along the way, each one of these paradigm shifts have ultimately allowed in dramatic value creation for buyers, value creation for suppliers. If you sit there and if I think about it from an order of magnitude, however, I would say the order of magnitude of value creation of the AI space is an order of magnitude larger than that of the cloud or the internet.

Richard: Wow, that's quite a statement. AI builds off both the internet and the cloud. I really like that example of [00:05:00] turbo lag because transitioning to AI can be challenging if you don't have the right data, if you don't have the right processes in place, if you don't have the right trust. So what lessons can we draw from earlier paradigm shifts? If we look at the internet, if we look at the cloud, how can we help organizations make a smoother move towards the AI adoption?

Rob: First one is obviously the turbo lag that I spoke of that there is an innate amount of risk aversion and fear of this new paradigm shift that that goes through the C-Suite and goes through the organizations that are, designed to be risk averse. So legal security supply chain where you have to be able to keep those supply chains open and flowing. So that's one thing. The other thing, I'll refer to the book Crossing the Chasm, which was a great book that talked about penetrating new markets, [00:06:00] especially in a paradigm shift. And it talks about how there's the lunatic fringe the early adopters, the early majority of the late majority in the laggards. One of the things that I've noticed over the past 30 years is the loudest people in a paradigm shift are the laggards that are so resistant to change. I won't even say that it's fear-based. I think that they've gotten very entrenched in how things have been done. So they're the loudest. So when there's a new way to do business, they have loudest to create fear, uncertainty, and doubt in decision makers and really slow down that process. And it isn't until you get enough of the lunatic fringe and the early adopters to start showing the step function of value that the early majority starts speaking up and overshadowing the laggards. So that would be a way that, that I think about it. The other example I like to give [00:07:00] is Paul Bunion. If you ever saw the cartoon the Paul Bunion strategy where he was a big giant guy cutting down with an axe, along comes the chainsaw. And everyone was against the chainsaw. And then finally he had a contest against the chainsaw, and the chainsaw eventually won. And then he said, okay, so you can make a many analogies, the buggy whip to the automobile. But that's how I would think about answering that.

Richard: It's interesting you talk about the FUD factor and how to convince and bring the laggards with you or over time, but what are some of the most prominent obstacles and what kind of controls or framework can help the leaders feel confident about moving from pilot projects to full scale production so that you really can prove it to those laggards?

Rob: Companies and the technologies and the platforms that are gonna be the most successful is where they don't just focus in on value, but they focus in also on risk minimization, [00:08:00] risk management and provide things such as audit trails and early customer experiences. I think it's very important to make the early majority and the C-suite feel safe that: yes, this is new, but it has been proven out not just to deliver value, but a lot of these tools and platforms today can deliver not just the value, but risk mitigation methodologies and audit trails. And I think providing those types of parts of the equation are extremely important to help create that safe environment for paradigm shifts to flourish.

Richard: It's really interesting. You use that example because one of the areas that we're seeing a huge opportunity for AI is in supply chain planning, for example. And supply chain planning is traditionally a black box approach. And you put the data in and you get the answers out. And the real question is, how can I trust that answer and how can I leverage [00:09:00] AI to help analyze the data that's coming outta the system to prove that it's accurate and Walk me through the process that black box went through.

Rob: Yes, data is another very interesting item. Especially when thinking about the, with the world of AI, there's the old adage garbage in is garbage out. It's interesting, like in the enterprise, every organization believes that they have garbage going in. It's fragmented, whether it's through acquisitions that they've done different systems, different platforms. So then the question is we don't have enough data, or we don't have the right data, so we can't really move forward with AI because of this fragmented or inaccurate data. But what I would offer is a new thought process that I actually went through because as I learned more about this paradigm shift of AI, there are different types of data strategies that can be used and that are being used currently in even non-AI solutions today to make things more, less risky, [00:10:00] but also the amount of machine learning. We used to hear about three or four or five years ago, I constantly used to hear the words AI and ML. And now it just brought, it says AI. The ML version, the machine learning aspects are really probably even a more powerful element than the algorithms that drive the AI. Because that machine learning really is pulling and learning behaviors of people, of organizations of data, of transactions, of everything. And you'd be surprised at how quickly that machine learning can provide a whole new level of quality data of which you can make decisions based upon. So yeah, that's one thing. The second thing I would say is you have to take a look also at your data sources and the reliability of the said data, and you need to intentionally architect how that data is used based on the [00:11:00] reliability of the said data. And the continued growth of that data. Is the database that you're pulling from, are they current? Are they stagnant? Are they updated once in a while? Are they constant? Are they real time? So having a data source strategies is another great way to help supply chains understand how to leverage their data.

Richard: It's interesting you brought that up as well because I just read a recent zero 100 report about predictions for 2026, and they were saying that one of the most beneficial AI use cases for supply chain is to help cleanse that data and to ensure the quality of the data. I wanna move on a little bit though, and talk about the human aspect of AI. We talk about AI in every podcast that we do, and the question comes up will AI replace humans? And my favorite quote is that AI won't replace humans, but humans that leverage AI will replace humans that don't. I want to talk a little bit about that because how are you seeing the

roles and the skills [00:12:00] required by the people working in business evolving when it comes to AI, and how can AI amplify people instead of sidelining them?

Rob: Yeah. It's a great question. It's a great topic. I believe, and I'm gonna even highlight I went to a lecture that was given by Zach Cass, who was an early chat GPT employee. And he said something that really struck me and then I'll apply it to this, and he said, AI, if you really think about it, allows people to be more like people, and it allows machines to be more like machines. And if you think through what we do, in fact, I was just speaking with an enterprise the other day and I said, let's think about how you do business today. And the traditional supply chain individual spends an ordinate amount of time doing telephone, email, and spreadsheets. Especially the spreadsheets. And if you think about what they're doing, they're collecting data, they're putting 'em in spreadsheets, they're creating pivot [00:13:00] tables, they're rotating 'em around, they're analyzing the data, they're trying to figure out things going on and there's so much data in supply chain that they spend 80% of their time and stuck in these pivot tables, doing all of that and have very little time for supplier relations and some of the more strategic elements and even going after all of the elements, for example, on the procurement space, going after all of the spend. So as a result, only 10 or 20% of the spend in a supply chain ever gets truly managed by an organization because there's just too much data with AI today, what's allowed is, you do not need a human being filling out all those fields in a pivot table. If you don't need a human being to analyze that. What you need the human beings to do is to decide strategically, do they wanna go for the incumbent or they wanna go for the new supplier at a better price, or they wanna go for [00:14:00] yet a third supplier that can give on time and full a lot faster than either the other two options. So suddenly the humans allowed to be human. And make these high quality business decisions and if the human's gonna go away from an incumbent, then do they wanna spend time going and visiting that supplier, understanding their business, and understanding the risk associated with going to that new business. So it allows humans to be humans and go interact with more people and spend less time having to stare at a screen. Putting data in and out.

Richard: Really like that example as well, because you a re really saying automate the mundane and the repetitive, and then And the humans can focus on what they're good at. The strategic the relationship building, the stuff that at the moment at least, AI can't do.

Rob: And as a result, they end up having a much more fun experience with their job they have and the quality of life. You think [00:15:00] of someone who

spends eight or nine hours a day and with their head stuck in pre spreadsheets versus talking to different people, having different topics. The quality of life it totally improved. So AI is gonna be an unbelievable tool, not just to make businesses more profitable and more efficient, but to improve the lives of the people that are using it.

Richard: We've started to touch on the next question I have, but. With that example, but what are the most compelling benefits that businesses can expect and what can they realize by successfully implementing AI within the supply chain and business operations?

Rob: I like to think of it in four areas. So the first one is true, tangible benefit. Tangible, whether it's hard dollar savings, whether it's hard dollar revenue increases dependent upon the part of the supply chain that you're in. But there's tangible savings, but there's no longer just the word tangible savings. It's called fast, tangible savings [00:16:00] or fast time to value. Fast time to value is dramatically different, i'll give an example. At Arkestro we're able to go live in five, not five months, not five weeks, five days. So we're able to deliver value, hard, tangible value inside of the first two, three weeks of someone learning how to use our product. So tangible. The second one is intangible, and that's operational efficiencies. Suddenly to be able to go after every line item of spend and make it competitively priced. Suddenly to be able to give individuals the opportunity to do four or five times more the amount of work that they could do before that's more enjoyable and make it more productive. And also for growing companies that need to scale suddenly the ability to be able to have the technology scale with them because AI can scale no matter [00:17:00] what the size. And then the third area is transformational. And this is one Richard that I think will truly, fully be understood for, I'm gonna guess another four or five years fully. And what I mean by that is the speed and scale of what AI can do and deliver allows people and organizations to totally transform the business. Everything we know about supply chain today has been spent more upon the digitization of the flows of how supply chains have worked. Wow. At Ariba, we could make the requisitioning process faster. At demand planning, you can make something faster, but it was, it's taken that same process and just making that process faster. We now have the ability to transform and change that process and instead of having. 500 steps in a process. Maybe you can do it in 20 steps or maybe you can [00:18:00] transform the steps altogether and have something that's internal and external in three steps. I don't know. And I don't think we all know until we truly see what the true impact of speed and scale allows. So that's the third one. And then the fourth one is what I call the long term value. So you get tangible, you get intangible, you get transformational. And then the fourth one is long term. And what I mean by long term is what I alluded to in the last one, is I believe there's gonna be a whole series of products

and solutions that come out over the long term that have completely reinvented how we even think of supply chain today.

Richard: I think that's when you get to the paradigm shift as well. The fast time to value the tangible, the intangible are great examples of benefits, but that transformational is when that paradigm shift, you can call it a paradigm shift at that point

Rob: I agree. I agree. That's that's, to me, when you're truly realizing the true [00:19:00] benefits of the transformation of AI.

Richard: And talking about benefits, how do we measure these benefits? What KPIs should we be looking for so that somebody that says, I'm gonna do an a project around AI, across my supply chain, across my manufacturing space, across my procurement? What type of KPIs are the measures of success when doing these implementations?

Rob: First of all, I would start off with those four pillars of value, tangible, intangible, transformational, and long term. And then what I would say, what are going to be the three to 10 key KPIs for each one of those that's gonna be representative. And I think those it becomes quite obvious based on where you are in the supply chain as to what those values are. So for example if you take a look at the intangible and operational efficiency for procurement, the opportunity suddenly to go and manage a hundred percent of your spend rather than 10 or 20% the opportunity to have competitive. Pricing on every [00:20:00] line item becomes unbelievable value. So being able to measure how much you do that, to be able to measure how much spend, or how many line items or how many suppliers can an individual work with. And, if suddenly you free up a procurement professional's time by 80% and they're able to interact with, five x more suppliers now that creates a whole different environment. So those would be the way I would think about the KPIs. And you can create what would be transformational KPIs, what would be long-term KPIs, and then you measure against all of those.

Richard: Hey we're coming to the end of the podcast. And maybe one of the questions I haven't asked, and I should ask as you are representing a company on this call, is, how can Arkestro help in this transformation, in this paradigm shift?

Rob: The way Arkestro helps is, I believe, and what got me off the sidelines and, from boardrooms and advisory roles to back in the game and being [00:21:00] CEO was I saw the opportunity to truly transform business to

business e-commerce from the buy side. I saw the opportunity to deliver previously locked value. And I saw the opportunity that this AI and game theory combination could deliver tremendous value that previously locked up in traditional processes. So through this transformation, we're able to unlock that and as a result, where you have places like Gartner and Forest to say that most procurement organizations are super successful using state-of-the-art tools to get five, four, or 5% savings annually. With Arkestro we're seeing savings anywhere from 15 to 30%, depending upon the industry that we're in. But we're not just seeing that in a very hard to define way. We're seeing it very quickly. We're able to deliver millions of dollars of value in a matter of weeks and that that type [00:22:00] of paradigm shift is what kind of got me off the rocking chair and back into the game. The transformation and paradigm shift of AI combined with this fast time to value of something that I hadn't really experienced even with Ariba. Ariba was and is a tremendous Procure-to-Pay platform . I like to say Arkestro focuses on the science of business to business e-commerce and the science that is able to go after it is the science that is enabled only through AI and game theory.

Richard: That leads me on perfectly to my last question, and it's always the most challenging question, I think, 'cause I'm gonna ask you to summarize everything we just talked about in a few sentences. So in a sentence or two, from an AI perspective, what's the future of supply chain?

Rob: I think the future of supply chain is that AI is going to be able to deliver transformation that was going to unlock a magnitude of value larger than we even thought possible. And the world is gonna be a [00:23:00] better place with it. People are going to be happier at their jobs. Suppliers are gonna be happier with their relationships with their customers. And AI is gonna allow humans to be humans.

Richard: That's a great way to end the conversation. Hey Rob, thanks for a great conversation. It's been really interesting.

Rob: Great. Thanks very much Richard. Good talking to you.

Richard: No problem, and you are welcome and thanks everyone for listening. Please mark us as a favorite. You can get regular updates and information about future episodes, but until next time from Rob and I, thanks for discussing the future of Supply Chain.